MONACO GP™

STAND MODEL

MANUFACTURED BY

Gremlin®/SEGA®

MANUAL PART NO. 420-0445

OWNER'S MANUAL

MONACO GP

Stand Model

Gremlin®/SEGA®

Copyright © 1980 by GREMLIN INDUSTRIES, INC. All rights reserved.

MONACO GP Game Description:

When the coins are deposited, the player's red car appears in the lower right corner of the screen. Drive the car using the steering wheel and accelerator pedal, avoiding collisions with the computer cars. Game time is set to a count of 90.

Player goes into extended play when he reaches a score of 2000 points. In extended play, the player wins an extra car; and, one extra car is awarded after every additional 2000 points. The game becomes more difficult after a score of 6000 points. The player's car speeds up and, at 8000 points, the computer cars speed up.

The game's front panel displays your score and the top 5 high scores. Also, each player is given a ranking out of the total numbers of players to date.

Adjustments and Options:

There are 2 game options, located on the #96577A main logic board:

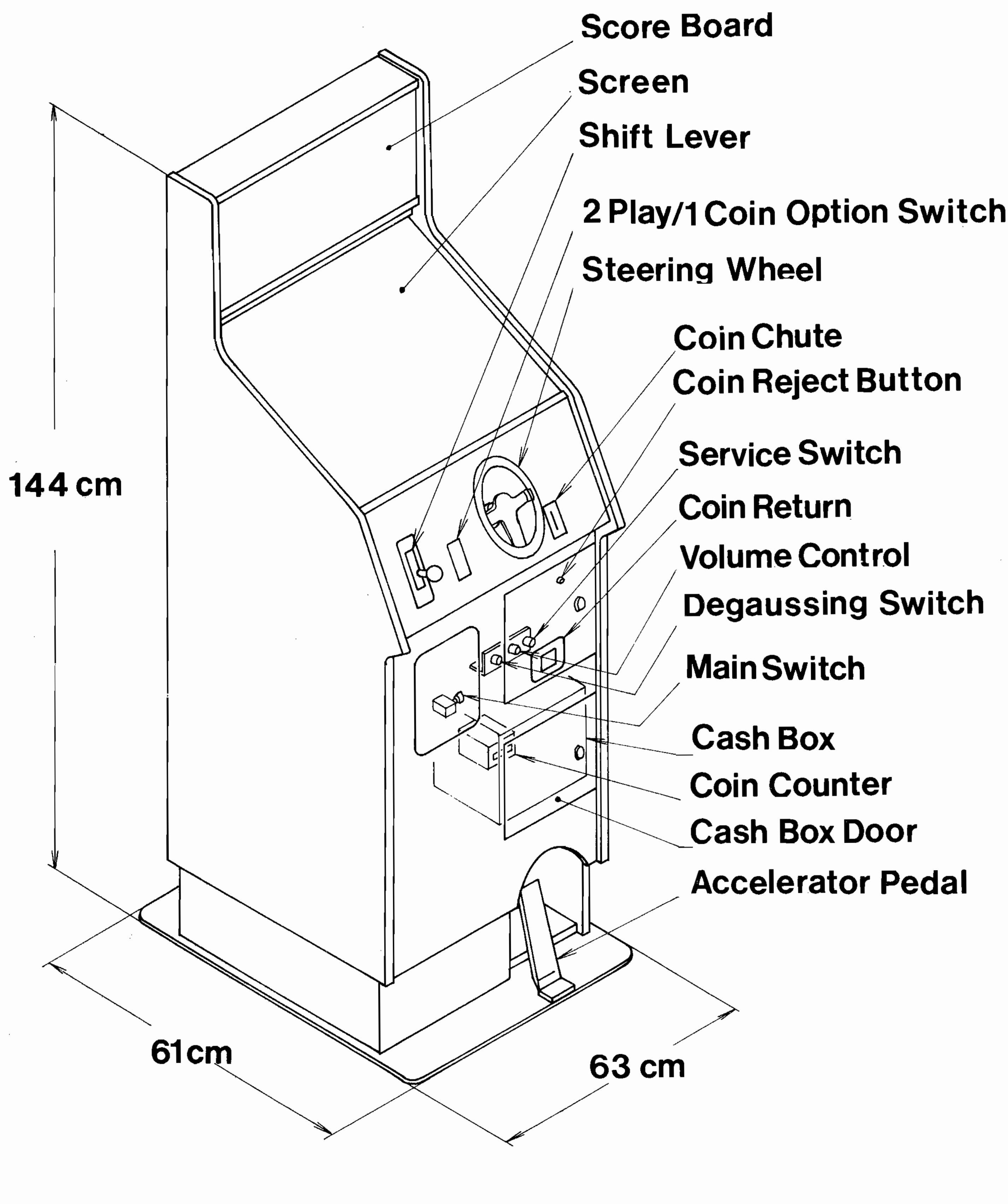
1. VR1- trim pot- adjusts game time
2. SW1- slide switch- selects either 1 or 2 plays per coin.

NOTE: On the sound board (#96598) there are 7 trim pots: These are for adjusting the FANFARE sound. They are pre-set by the factory. Also on this board are 2 switches, SW1 and SW2. SW1 should be set so that positions 1,2, and 3 are OFF. Position 4 should be ON. Switch SW2 should be set to positions 1 and 2 OFF.

Descriptions and Part Numbers of MONACO GP logic boards:

Logic board	Part Number Stamped on Board
Main logic, A	96577-P
Main logic, B	96578-P
Sound (Oscillator)	96598-P
Display board	96597-P
Display board	MO-4202
Accelerator board	96599-P
Edge connector board	96620-P
Edge connector board	96624-P

BASIC CONTROLS & DIMENSIONS



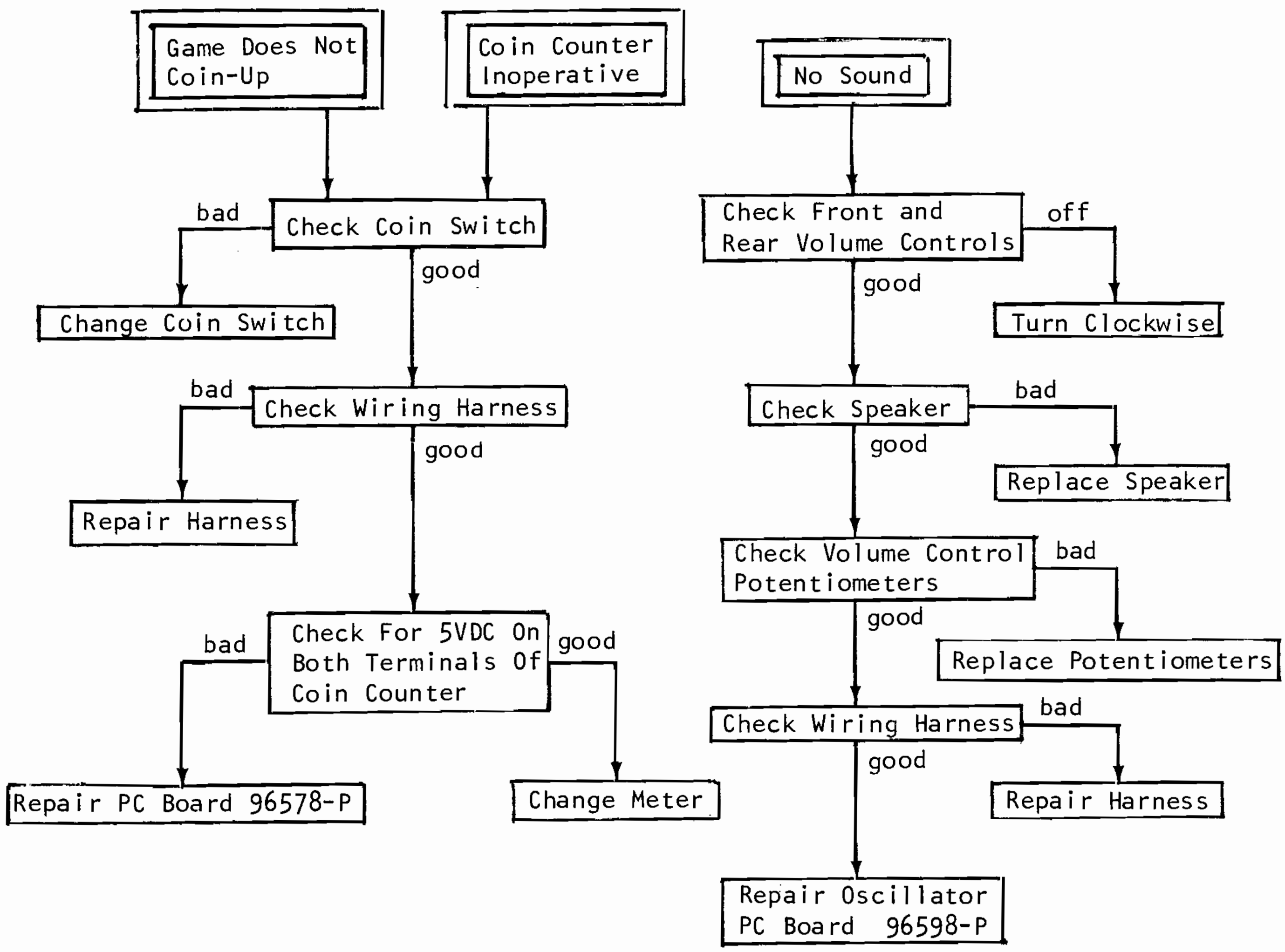
HELPFUL HINTS

DEGAUSSING THE CRT	Sometimes changing the location, or direction of the machine will cause a color change in the CRT. If this occurs, depress the DEGAUSSING SWITCH to correct.
DISASSEMBLING THE POWER UNIT	The power unit, located on the bottom of the unit, can be removed by unscrewing the three (3) butterfly (M5) bolts; and, disconnecting it from the rail before lifting out.
DISASSEMBLING THE STEERING UNIT	Remove the connecting plug and unhook the side hooks on each side of the unit. The steering unit will come out with the front panel.
REMOVING THE TV MONITOR	Remove the front panel and front glass. Loosen the four (4) mounting screws and remove all conections very carefully. The monitor is ready to pull out.
RESETTING THE SYSTEM	Occasionally, the signals will not reset when powering up. If this occurs, turn the power on/off a few times to reset the signal to the monitor.
FUSE REPLACEMENT	Always replace any fuse with the proper replacement of the same identical value.
2 PLAY/1 COIN OPTION	Remove the Front Panel Cover Plate and replace Panel Switch with MO-0019 (Instruction & Switch Assy). Reconnect harness following wiring diagram. Drill a 1.5mm hole over the old hole on the Denominational Plate. Add new plate

2 PLAY/1 COIN OPTION (cont.)	(177-013) with Parker Screws 1.5 x 4.5, as supplied. Set switch position to 2 PLAY on main PCB 96577-P.

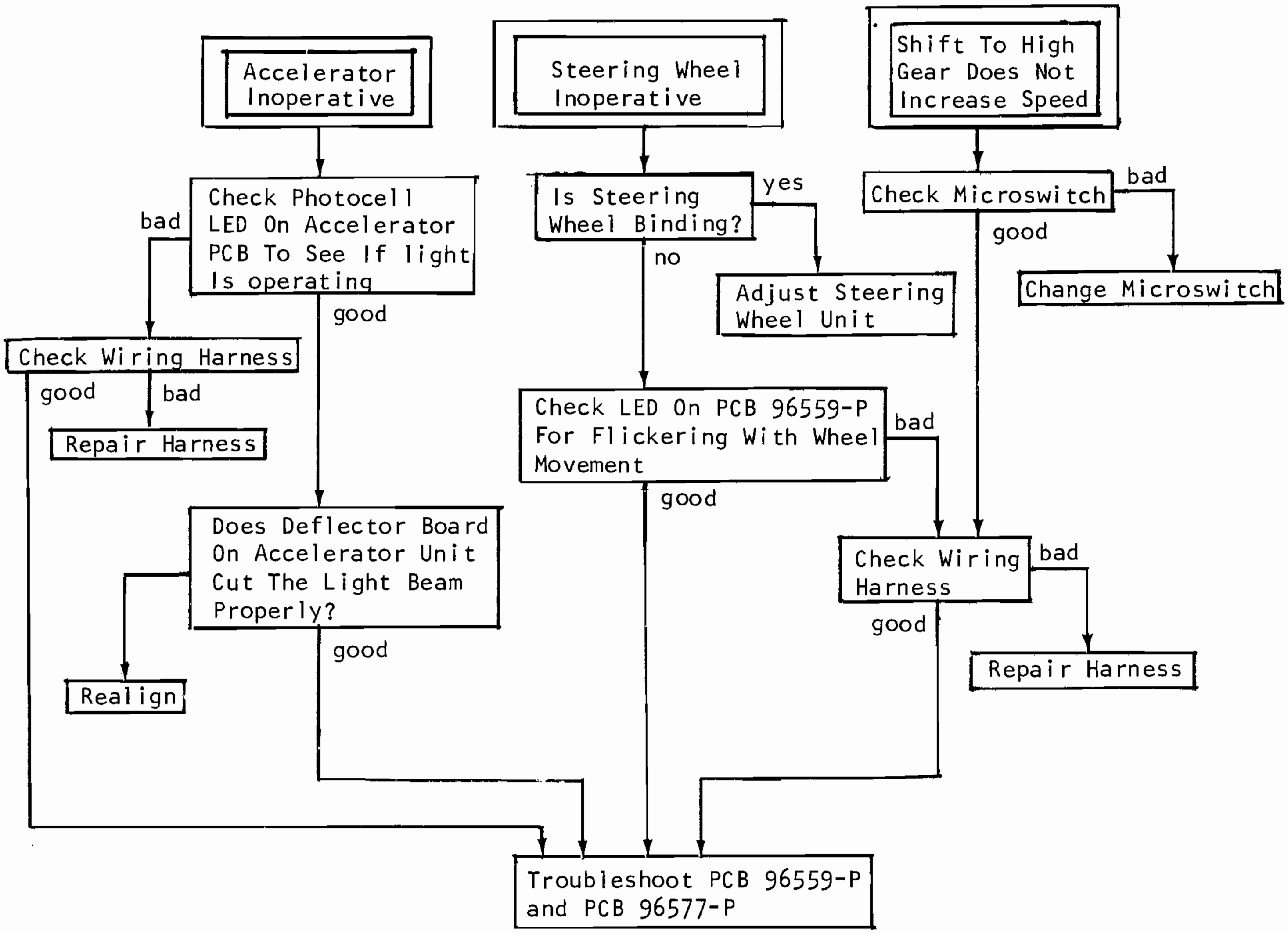
TROUBLESHOOTING

CHART 1



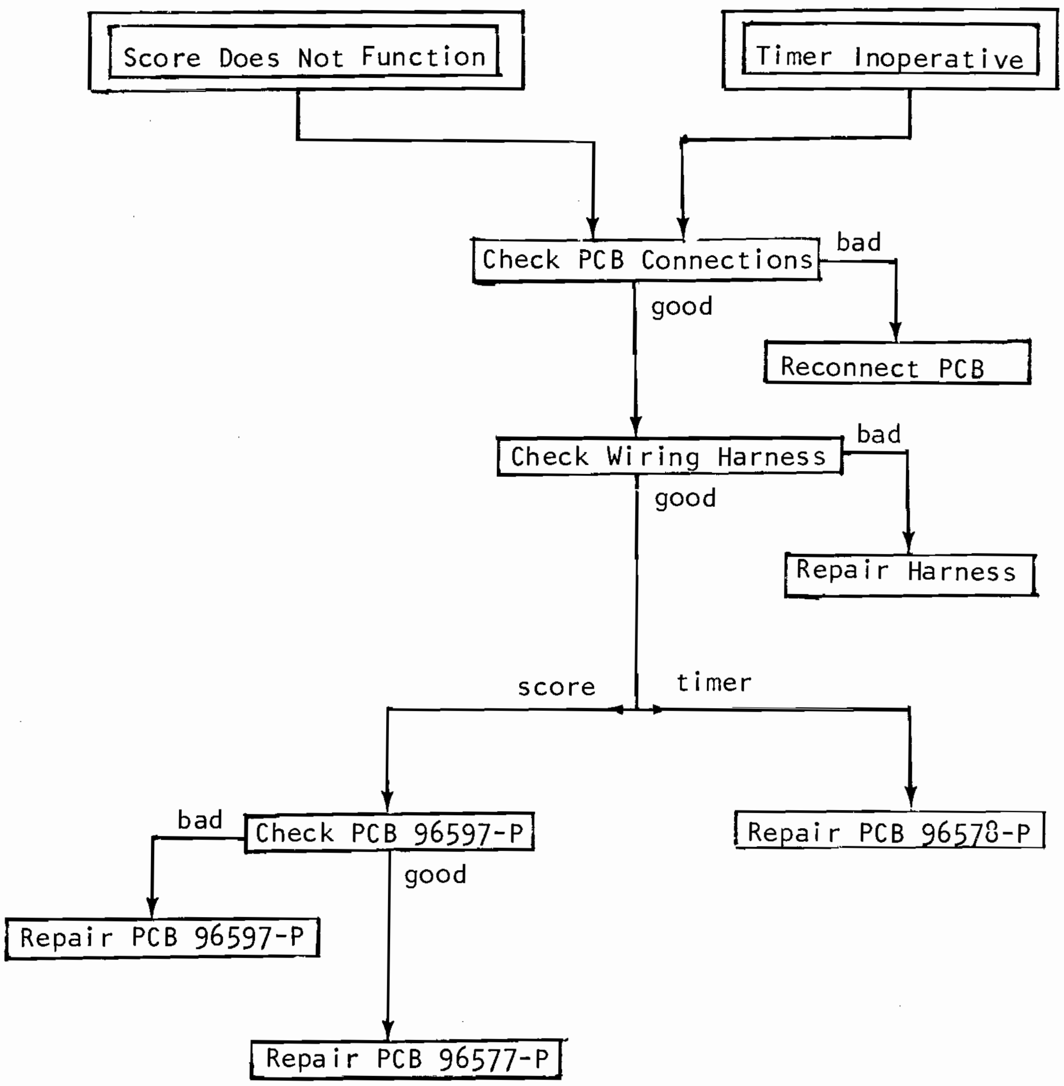
TROUBLESHOOTING

CHART 2

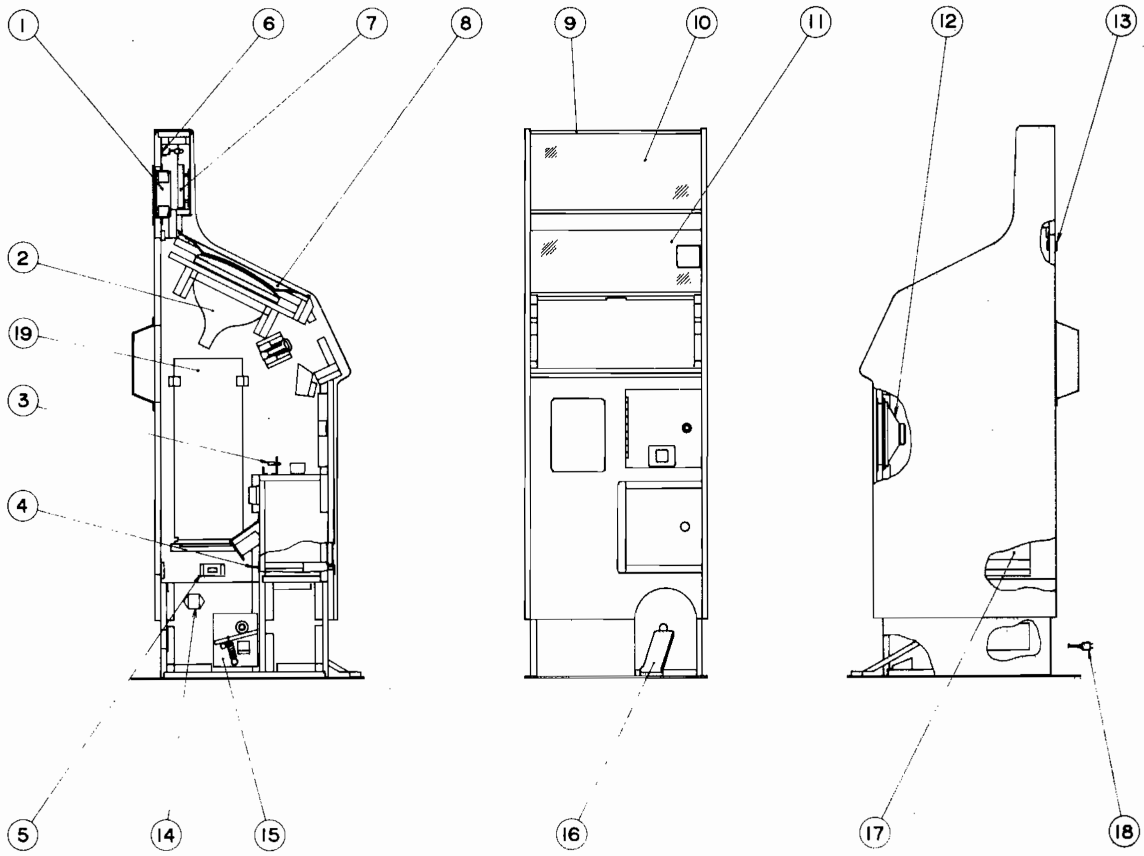


TROUBLESHOOTING

CHART 3

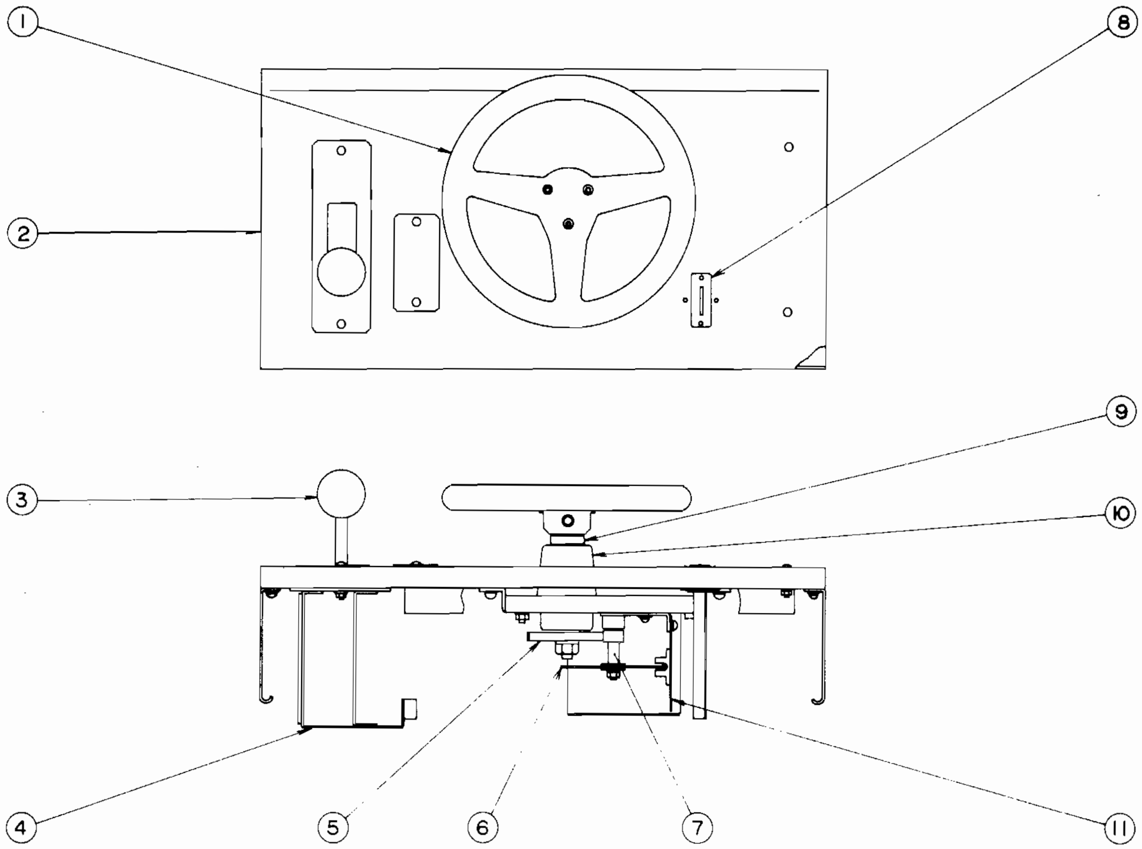


CABINET ACCESSORY ASSY



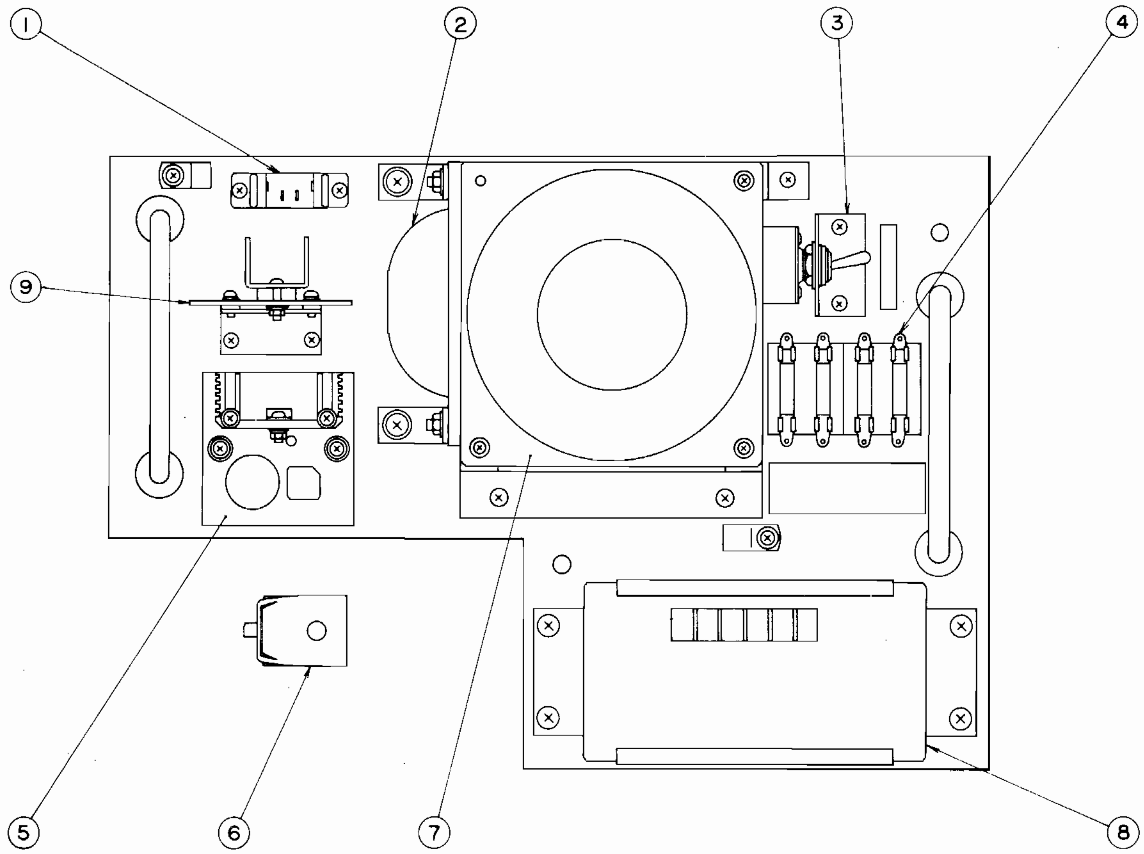
Item	Part No.	Description
1	S-96626	Axial Flow Fan, AC100V
2	CI-20006	Color Display Assy, 14H, 90
3	S-96477	Push Button Switch, 2T.
	S-93157	Volume Control, B-25KΩ
4	S-91654	Rectifier, Silicon Diode
5	S-90834	Switch, Push Button Type
6	S-94428	Bulb, 6.3V, 0.25A
7	MO-42001	Score Board Assy
	S-96600	L.E.D., Numeric Display, Red
	S-96679	L.E.D., Numeric Display, 2 Digit, Red
8	DO-1021	Color TV Mask, 14
9	MO-1032	Ornament Frame
10	MO-1033	Top Glass
11	MO-1064	Front Glass
	MO-1060	Play Instructions Plate
12	S-91359X	Speaker, 187x130mm, 8Ω
13	LS-1064	Ace Cylinder Lock, L.S. Type
14	S-96634	Noise Filter, AC 250V, 4A
15	MO-1016	Accelerator Pedal Assy
	PC-1206	Photocoupler Unit, A
	PC-1207	Photocoupler Unit, B
	SG-1112	Accelerator Pedal Shaft
	GP-1040	Shoulder Screw
	GP-1042	Extension Spring
	FL-3031	Extension Spring
	DH-3318	Shoulder Screw
16	S-80807	Accelerator Pedal
17	96577-P	IC Board Assy, Monaco GP, A
	96578-P	IC Board Assy, Monaco GP, B
	96598-P	Oscillator, Monaco GP
18	90759X	Cable & Plug Assy
19	96597-P	Score Display IC Board Assy

CONTROL PANEL ASSY



Item	Part No.	Description
1	MO-2021	Steering Handle
2	MO-2018	Front Panel
3	MP-1025	Handle Ball, Red
4	MO-2023	Transmission Assy
	RR-1012	Handle Assy
	SH-3022	Cam Assy
	2P-11600	Rubber Bumper
	2P-11601	Rubber Retainer
	FC-2541	Compression Spring
	S-80216	Steel Ball, 10.3188φ
	S-91421	Switch, Micro Type
5	MO-2009	Spur Gear, 60T
6	MO-2007	Disc
7	MO-2008	Spur Gear, 14T
8	PT-0212	Coin Entry Plate, ¥100
9	MO-2020	Steering Wheel Shaft
10	MO-2004	Housing
11	96599-P	IC Board Assy, Monaco GP, C

POWER SUPPLY ASSY

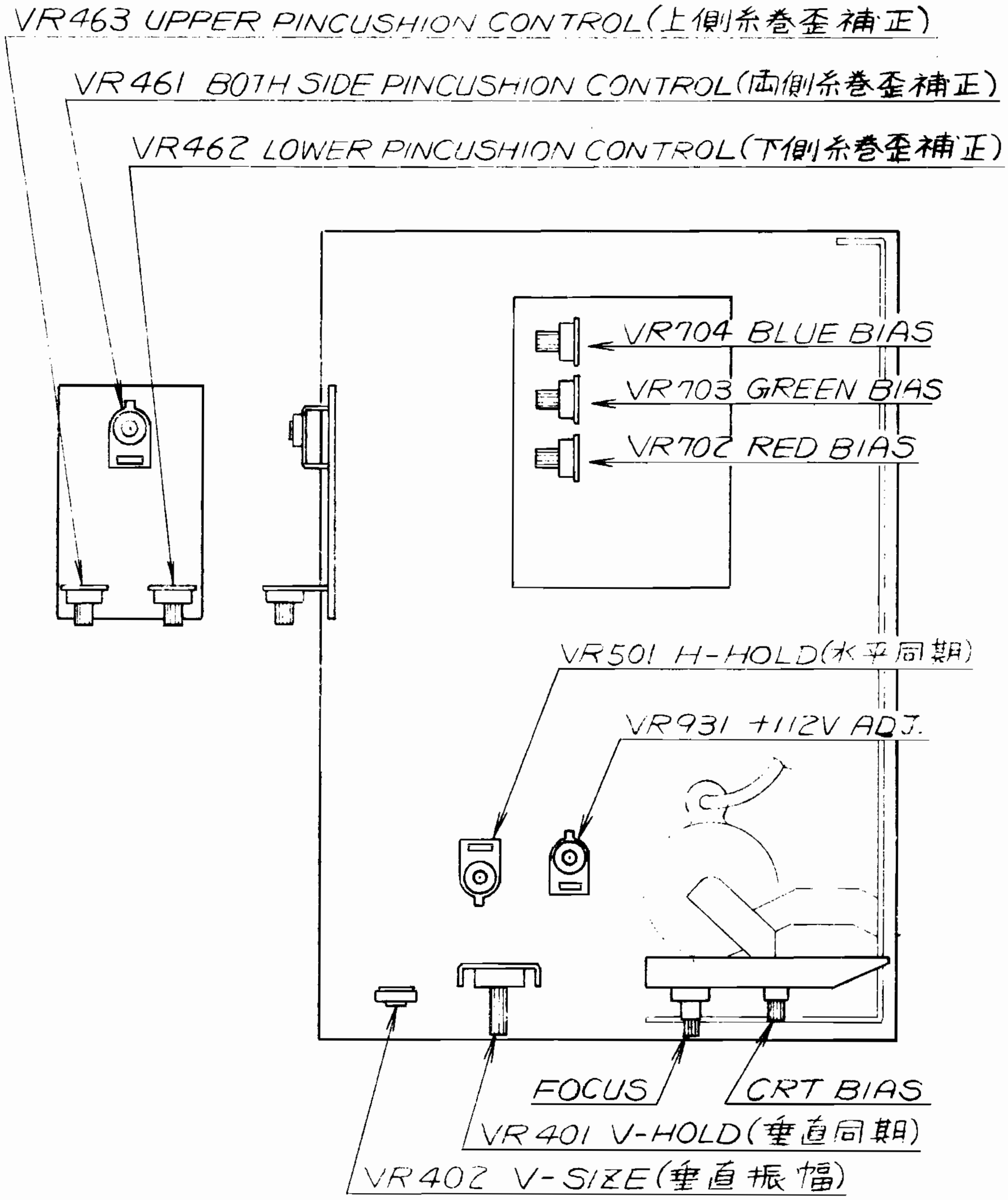


Item	Part No.	Description
1	S-94441	Rectifier, Silicon Diode
2	96627	Power Transformer, 7V, 11V, 16V, 100-120V
3	S-96395	Switch Toggle, SP-DT, 15A
4	S-90644	Fuse, 2A
	S-91941	Fuse, 4A
	S-91151	Fuse, 8A
5	MO-4002	Regulator Unit, DC12V, 20V
6	S-96262	AC Cord, Connector Body, Flat Type, 125V-15A
7	S-96626	Axial Flow Fan, AC100V
8	S-96638	Switching Regulator, AC100V, 5V, 15A
9	BC-4603X	Power Amplifier, 5W

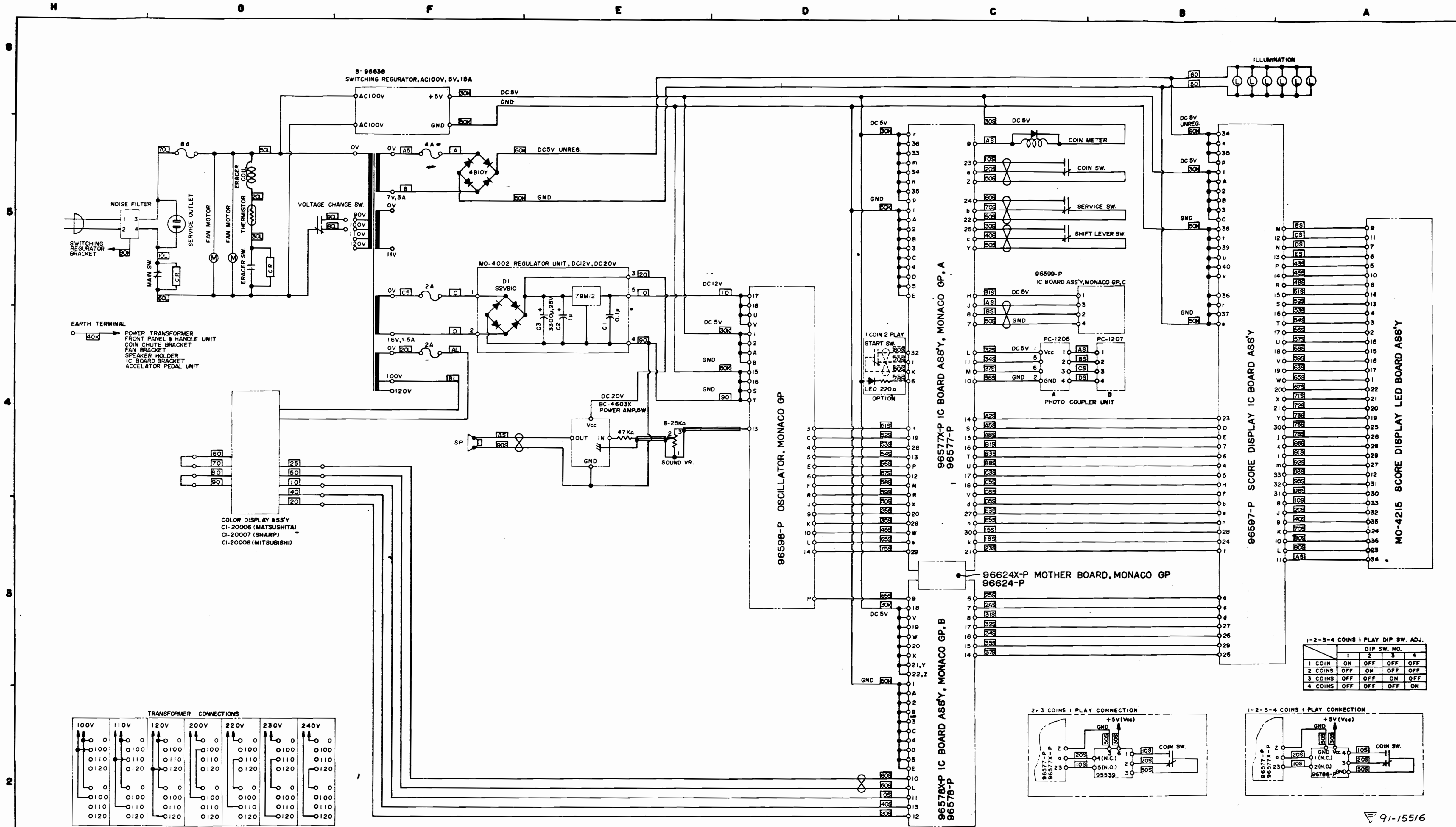
TV MONITOR ADJUSTMENTS

SUB-BRIGHT	R408	Monitor brightness
HORIZ WIDTH	L601 (CRT)	
VERT WIDTH	R517 (CRT)	
VERT POSITION	K502	Moves center to right
	K501	Center
	K503	Moves center to left
VERT HOLD	R515 (CRT)	
HORIZ HOLD	R616 (CRT)	
B+	R707	Adjustable from 90v to 105v
RED DRIVE	R807	
BLUE DRIVE	R809	
RED BIAS	R813	These three adjustments interact to balance white and set halftones and gray balance. Red and Blue Drive controls interact also.
GREEN BIAS	R814	
BLUE BIAS	R815	
SCREEN ADJUST	R824	Increases brightness and interacts with white balance. After white balance adjustments, the beam current setting (R301 dc voltage) must not exceed -7.0v.
FOCUS		Adjust each time brightness is altered.

カラーモニターの調整
TV VOLUME ADJUSTMENT INSTRUCTIONS



S-96592-P COLOR DISPLAY, 14H TYPE
(MITSUBISHI 919C049-3)



1-2-3-4 COINS 1 PLAY DIP SW. ADJ.

	DIP SW. NO. 1	2	3	4
1 COIN	ON	OFF	OFF	OFF
2 COINS	OFF	ON	OFF	OFF
3 COINS	OFF	OFF	ON	OFF
4 COINS	OFF	OFF	OFF	ON

POWERS

VOLTAGE	110V	200V	220V	230V	240V	100V
STAND-BY	W	W	W	W	W	301 W
MAXIMUM	W	200 W	200 W	W	200 W	POWER CONSUMPTION

ALTERATION: A ADD 1-2-3-4 COINS 1 PLAY 1/21-'80

COIL LOCATIONS | RELAY LOCATIONS

ABBREVIATIONS USED

SOL.	SOLENOID
SW.	SWITCH
RE.	RELAY

WIRE COLOR CODE

52	WHITE BLUE
51	WHITE RED
50	WHITE
	EXAMPLES
K	KING WIRE (30 str.)
L	LARGE WIRE
J	JUMPER WIRE
E	LIGHT GREEN
D	PURPLE
C	BROWN
B	SKY BLUE
A	PINK
9	GRAY
8	BLACK
7	ORANGE
6	MAROON
5	WHITE
4	GREEN
3	YELLOW
2	BLUE
1	RED

SWITCH SYMBOLS
- CIRCLE IN THE SWITCH SYMBOLS INDICATES OPERATION BY A MOTOR
- MAKE AND BREAK SWITCH
- NORMALLY CLOSED SWITCH OPEN WHEN ENERGIZED
- NORMALLY OPEN SWITCH CLOSED WHEN ENERGIZED

APR. 10-25-1979
ASSY. 10/25-'79
CK'D 10/25-'79
DRW. 10/25-'79

SGB-2553

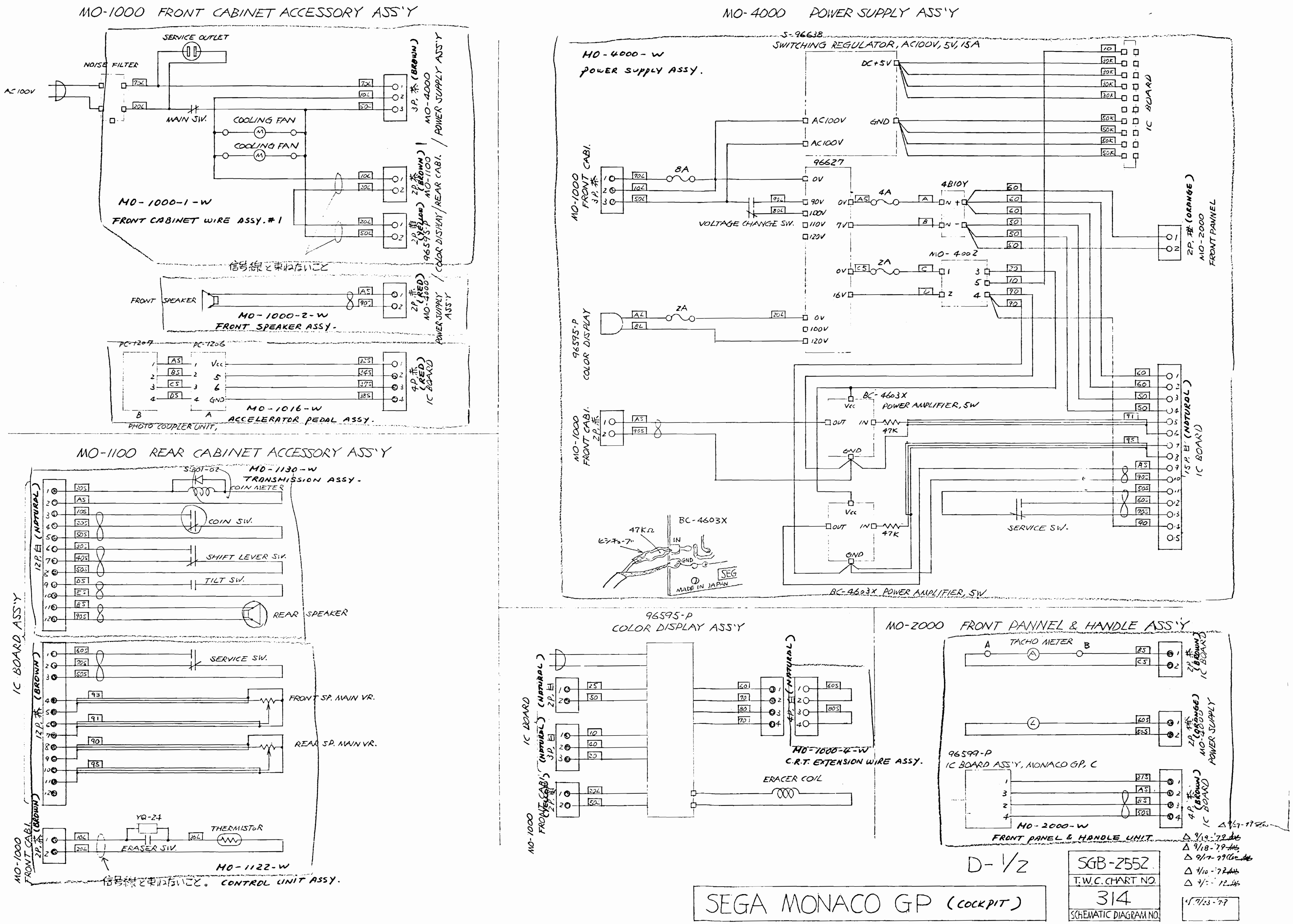
T.W.C. CHART NO.

SEGA MONACO GP STAND MODEL (AC100V ~ 240V 50/60Hz)

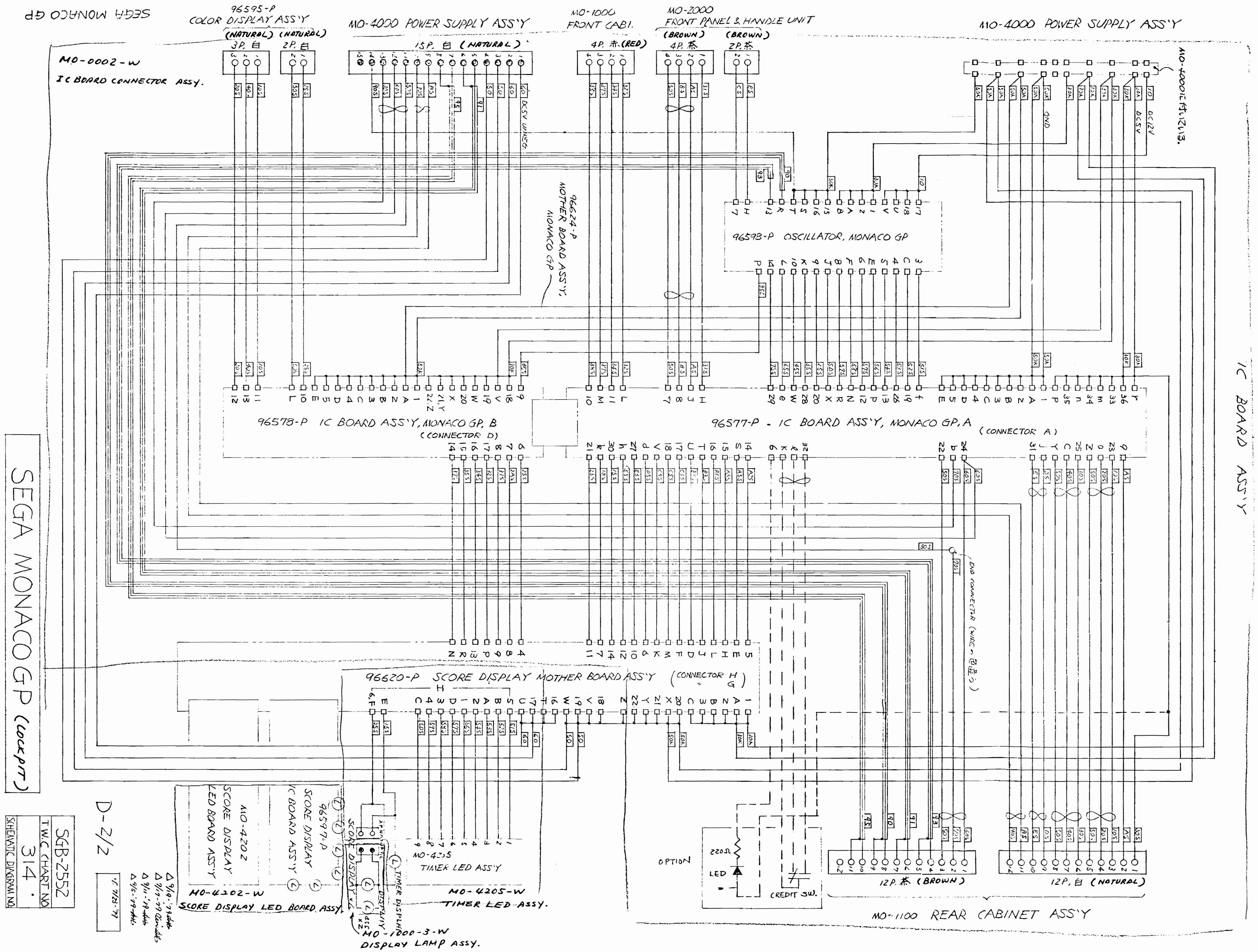
DESCRIPTION

315

SCHEMATIC DIAGRAM NO.

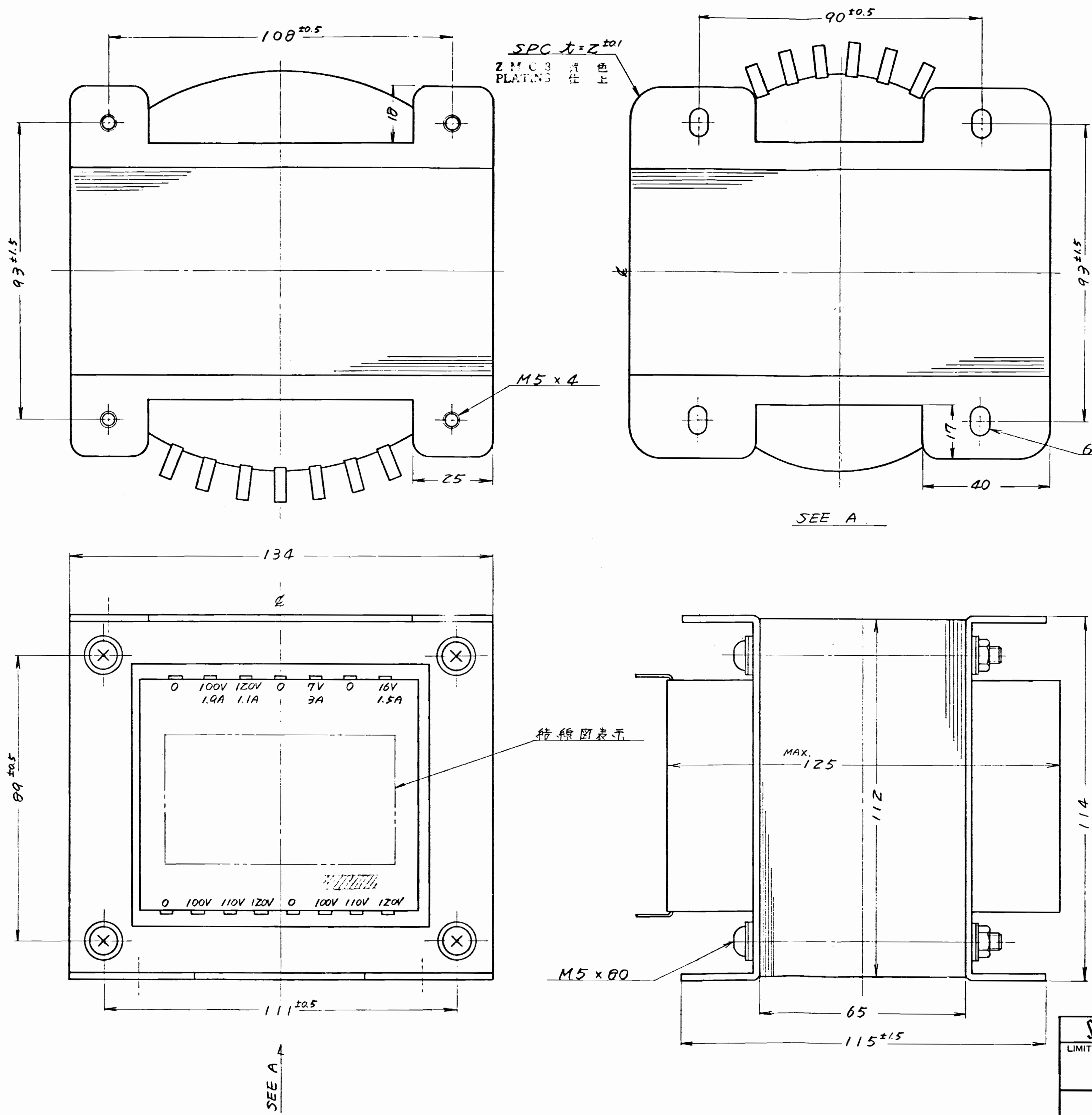


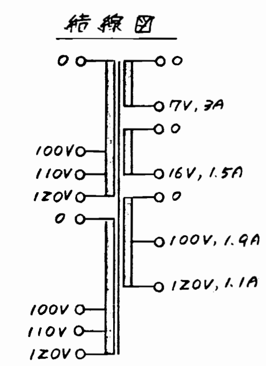
MO-1000 FRONT CABINET ACCESSORY ASS'Y
SERVICE OUTLET
NOISE FILTER
AC100V
MAIN SW.
COOLING FAN
COOLING FAN
MO-1000-1-W
FRONT CABINET WIRE ASSY. #1
3P. 茶 (BROWN) MO-4000 / POWER SUPPLY ASS'Y
2P. 茶 (BROWN) MO-1100 / REAR CABI.
2P. 黄 (YELLOW) 96595-P / COLOR DISPLAY
信号線と束ねないこと
FRONT SPEAKER
MO-1000-2-W
FRONT SPEAKER ASSY.
2P. 赤 (RED) MO-4000 POWER SUPPLY ASS'Y
PC-1207
PC-1206
Vcc
GND
MO-1016-W
ACCELERATOR PEDAL ASSY.
PHOTO COUPLER UNIT
4P. 赤 (RED) IC BOARD
MO-1100 REAR CABINET ACCESSORY ASS'Y
S5I01-02
MO-1130-W
TRANSMISSION ASSY.
COIN METER
COIN SW.
SHIFT LEVER SW.
TILT SW.
REAR SPEAKER
IC BOARD ASS'Y
12P. 白 (NATURAL)
12P. 茶 (BROWN)
SERVICE SW.
FRONT SP. MAIN VR.
REAR SP. MAIN VR.
MO-1000 FRONT CABI. 2P. 茶 (BROWN)
YQ-24
THERMISTOR
ERASER SW.
MO-1122-W
信号線と束ねないこと。 CONTROL UNIT ASSY.
MO-4000 POWER SUPPLY ASS'Y
MO-4000-W
POWER SUPPLY ASSY.
S-96638
SWITCHING REGULATOR, AC100V, 5V, 15A
DC+5V
AC100V
AC100V
GND
IC BOARD
MO-1000 FRONT CABI. 3P. 茶
8A
96627
4A
4B10Y
0V
90V
100V
110V
120V
VOLTAGE CHANGE SW.
2P. 赤 (ORANGE) MO-2000 FRONT PANNEL
2A
MO-4002
16V
96595-P COLOR DISPLAY
2A
MO-1000 FRONT CABI. 2P. 茶
BC-4603X
POWER AMPLIFIER, SW
Vcc
OUT
IN
47K
GND
12P. 白 (NATURAL) IC BOARD
SERVICE SW.
47KΩ
BC-4603X
MADE IN JAPAN
SEG
BC-4603X POWER AMPLIFIER, SW
96595-P
COLOR DISPLAY ASS'Y
IC BOARD 2P. 白
3P. 白 (NATURAL)
MO-1000 FRONT CABI. 2P. 黄
4P. 白 (NATURAL)
MO-1000-4-W
C.R.T. EXTENSION WIRE ASSY.
ERACER COIL
MO-2000 FRONT PANNEL & HANDLE ASS'Y
TACHO METER
2P. 茶 (BROWN) IC BOARD
2P. 赤 (ORANGE) MO-4000 POWER SUPPLY
96599-P
IC BOARD ASS'Y, MONACO GP, C
4P. 茶 (BROWN) IC BOARD
MO-2000-W
FRONT PANEL & HANDLE UNIT
D-1/2
SGB-2552
T.W.C. CHART NO.
314
SCHEMATIC DIAGRAM NO.
SEGA MONACO GP (COCKPIT)

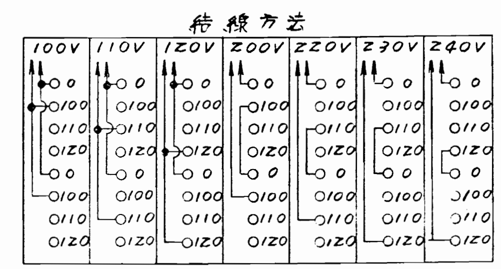

SEGA MONACO GP
96595-P
COLOR DISPLAY ASS'Y
(NATURAL) (NATURAL)
3P. 白
2P. 白
MO-4000 POWER SUPPLY ASS'Y
15P. 白 (NATURAL)
MO-1000
FRONT CABI.
4P. 赤 (RED)
MO-2000
FRONT PANEL & HANDLE UNIT
(BROWN)
4P. 茶
(BROWN)
2P. 茶
MO-4000 POWER SUPPLY ASS'Y
MO-0002-W
IC BOARD CONNECTOR ASSY.
96624-P
MOTHER BOARD ASS'Y, MONACO GP
96593-P OSCILLATOR, MONACO GP
96578-P IC BOARD ASS'Y, MONACO GP, B
(CONNECTOR D)
96577-P IC BOARD ASS'Y, MONACO GP, A
(CONNECTOR A)
IC BOARD ASS'Y
96620-P SCORE DISPLAY MOTHER BOARD ASS'Y
(CONNECTOR H G)
SEGA MONACO GP (COCKPIT)
SGB-2552
T.W.C CHART NO.
314
SCHEMATIC DIAGRAM NO.
D-2/2
MO-4202
SCORE DISPLAY
LED BOARD ASS'Y
96597-P
SCORE DISPLAY
IC BOARD ASS'Y
MO-4202-W
SCORE DISPLAY LED BOARD ASSY.
MO-4205
TIMER LED ASS'Y
MO-4205-W
TIMER LED ASSY.
MO-1000-3-W
DISPLAY LAMP ASSY.
OPTION
220Ω
LED
CREDIT SW.
12P. 茶 (BROWN)
12P. 白 (NATURAL)
MO-1100 REAR CABINET ASS'Y

MACHINE	SUB-ASS'Y
	LIST-B150Z

ALTERATIONS
REMODEL







仕 様

1 器　種　単相乾式自冷型
2 出力容量　367VA
3 定格一次電圧　100,110,120,200,220,230,240V
4 定格二次電圧　7,16,100,120V
5 周波数　50-60Hz
6 時間定格　連続
7 絶縁種類　A 種
8 絶縁抵抗　DC500Vメガー ニテ100MΩ以上
9 絶縁耐力　AC1500V ニテ1分間耐エルコト
10 温度上昇　抵抗法ニテ60deg以下
11 電圧変動　無負荷 7.35V以下 負荷 3A 7V以上
〃 16.8V 〃 1.5A 16V以上
〃 105V 〃 1.9A 100以上
〃 126V 〃 1.1A 120V以上
12 安全規格　電気用品取締法ヲ満足スルコト

SEGA® enterprises ltd.

THIS DRAWING WILL IN NO WAY BE COPIED.
TO BE RETURNED ON DEMAND.
許可ナク複写複製等厳禁

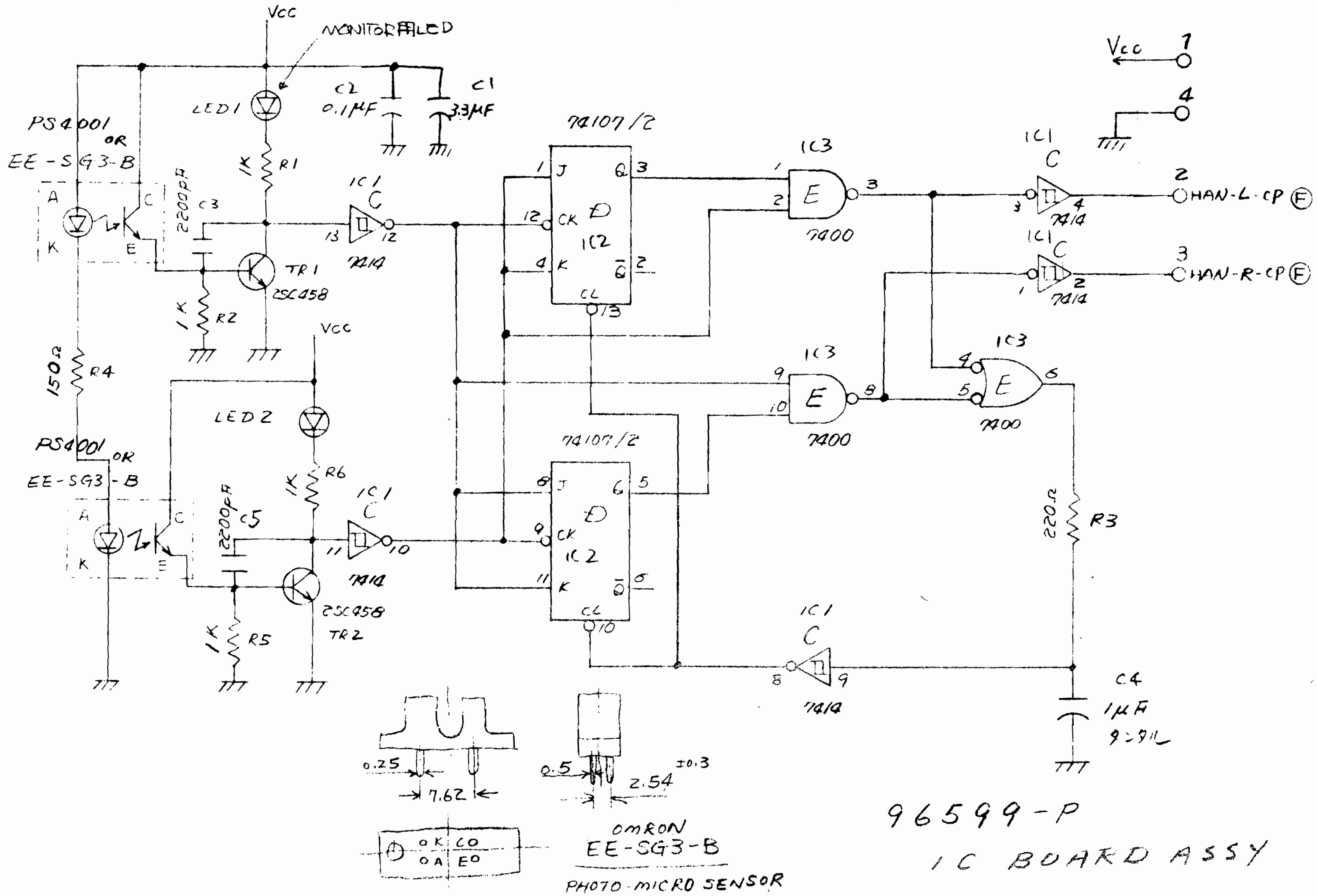
LIMITS UNLESS OTHERWISE SPECIFIED	3RD QUAT. PROJ. DRAWING		APR.	
±1	SCALE	1/1	ASS'Y	10/31-'79
	DIM. IN	mm	CK'D	10/31-'79
			DRW.	10/30-'79

MATERIAL	HEAT TREAT.	FINISH	REMARK

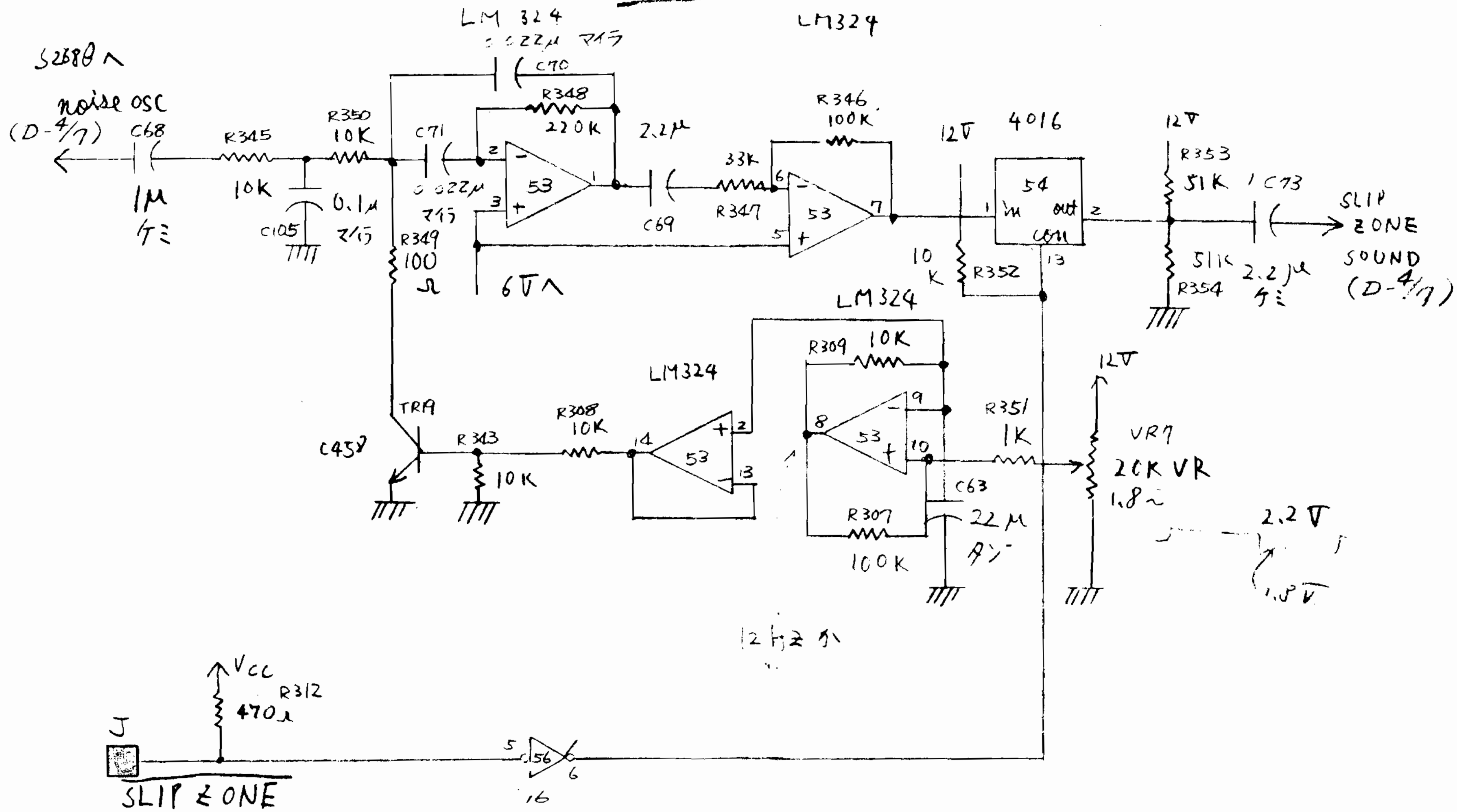
DESCRIPTION	PART NO
POWER TRANSFORMER, 100-240V (GP)	96741

HANDLE, LOGIC DIAGRAM

(ACCELERATOR BOARD)



SLIP ZONE SOUND



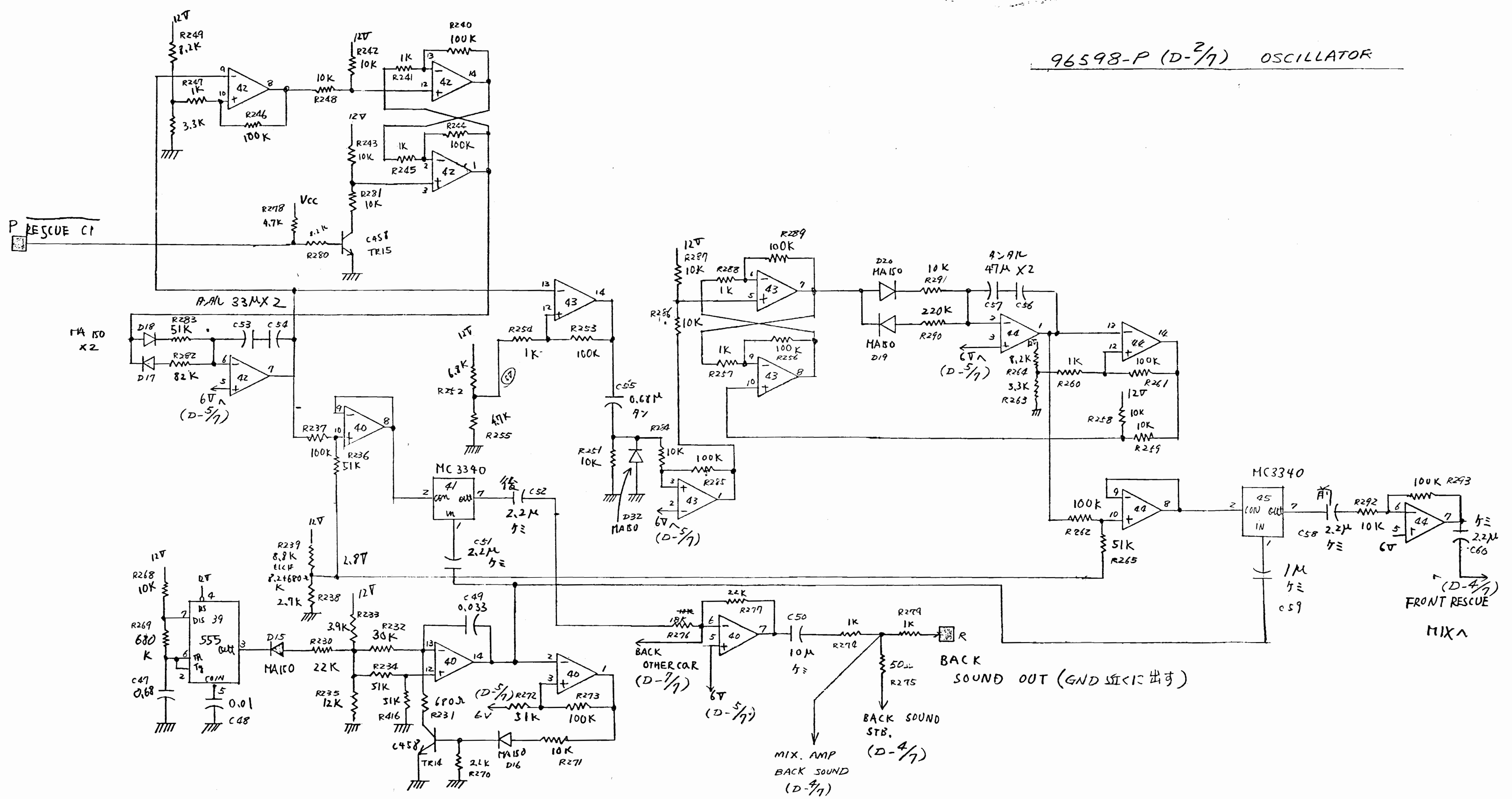
96598-P (D-1/7) OSCILLATOR

Ⓢ - MONACO GP

OP AMP LM324

RESCUE CAR

96598-P (D-2/7) OSCILLATOR



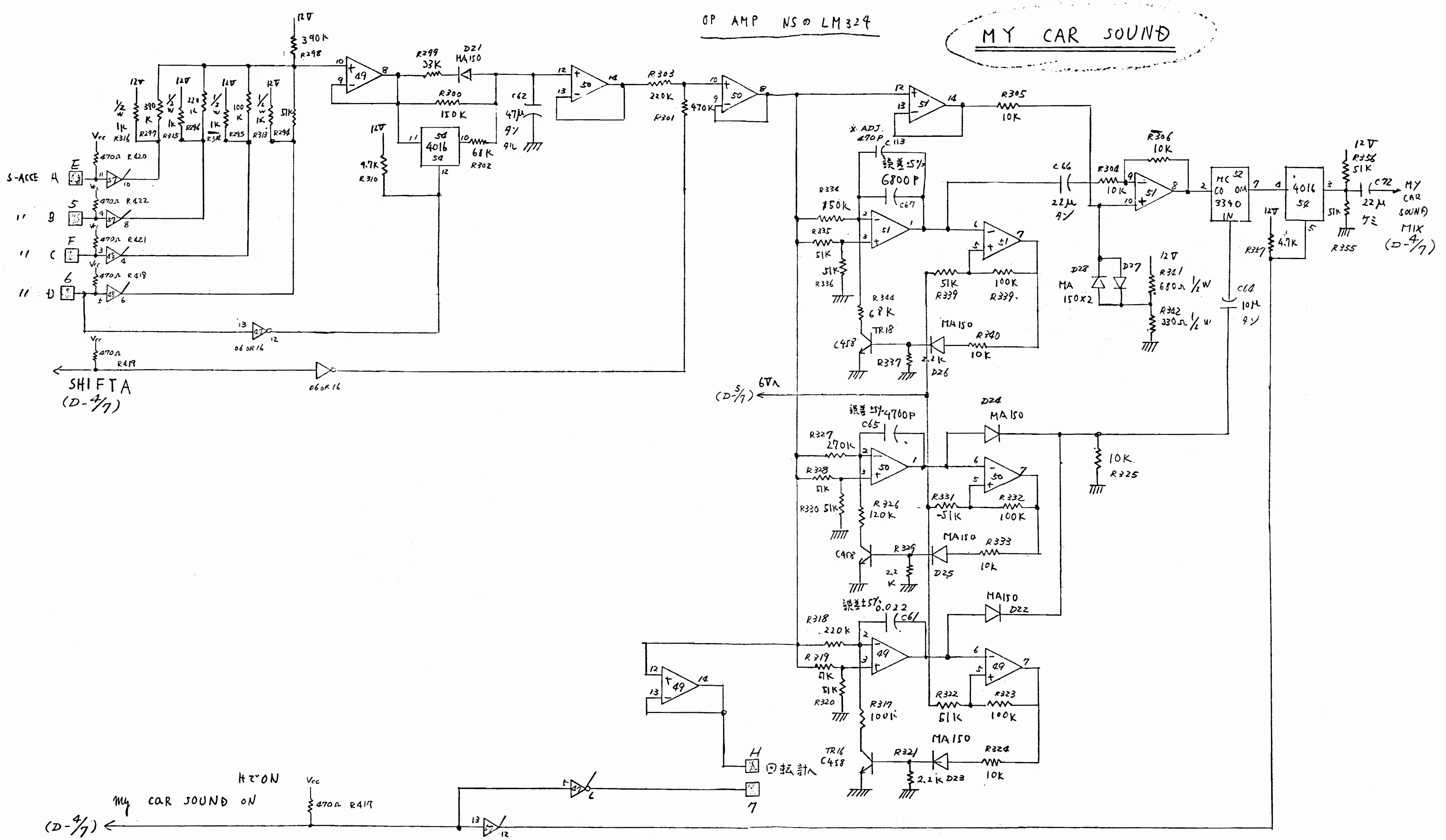
LM324 4コ
555 1コ
MC3340 2コ

AUG 30 1979

S MONACO GP

OP AMP NS の LM324

MY CAR SOUND



96598-P (D-3/7) OSCILLATOR

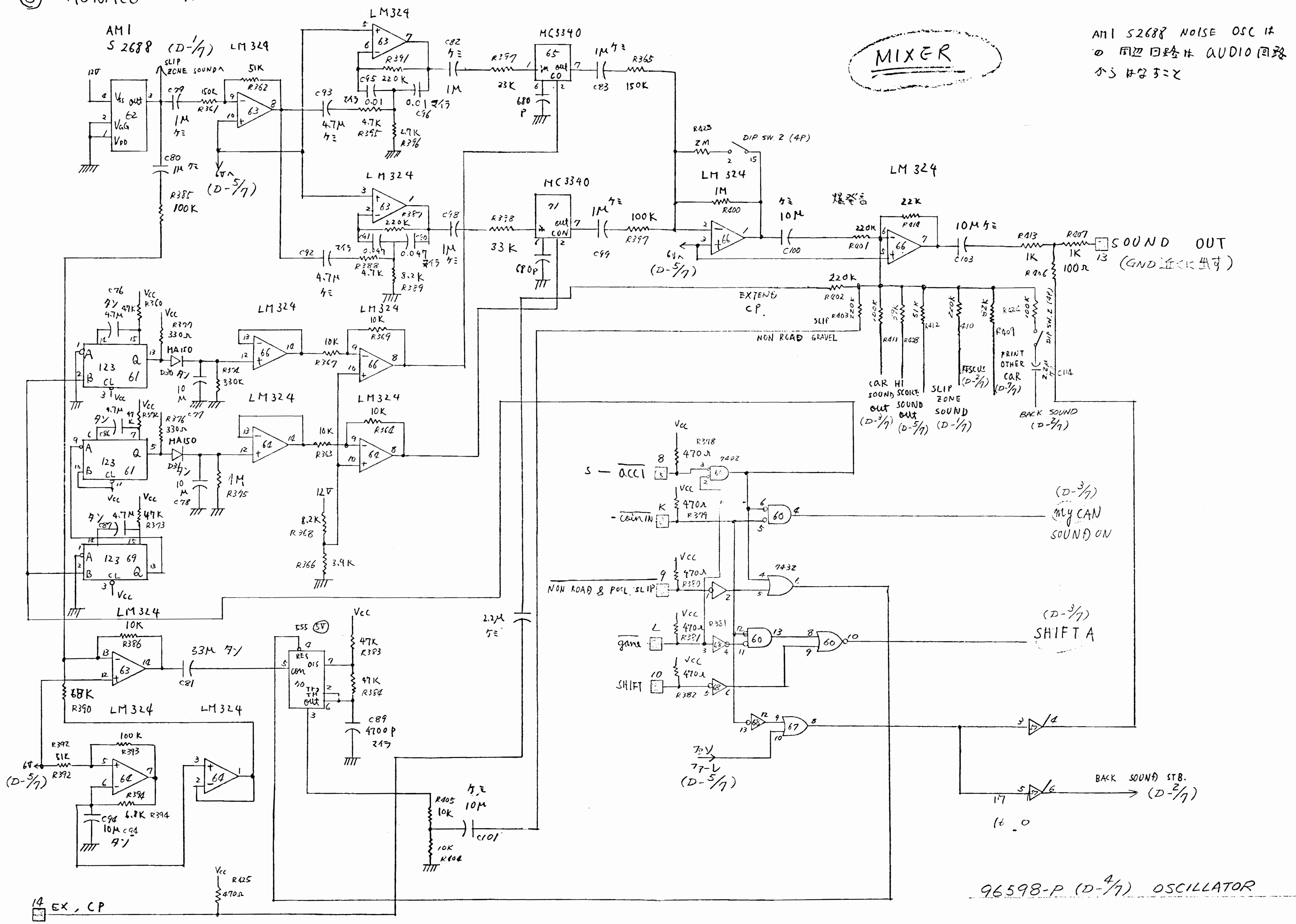
LM 324 × 3
04 × 1
07 × 2
3340 × 1

回転計内部 メーター類のランプ
は12V AC又はDC

15 KΩ 750μA

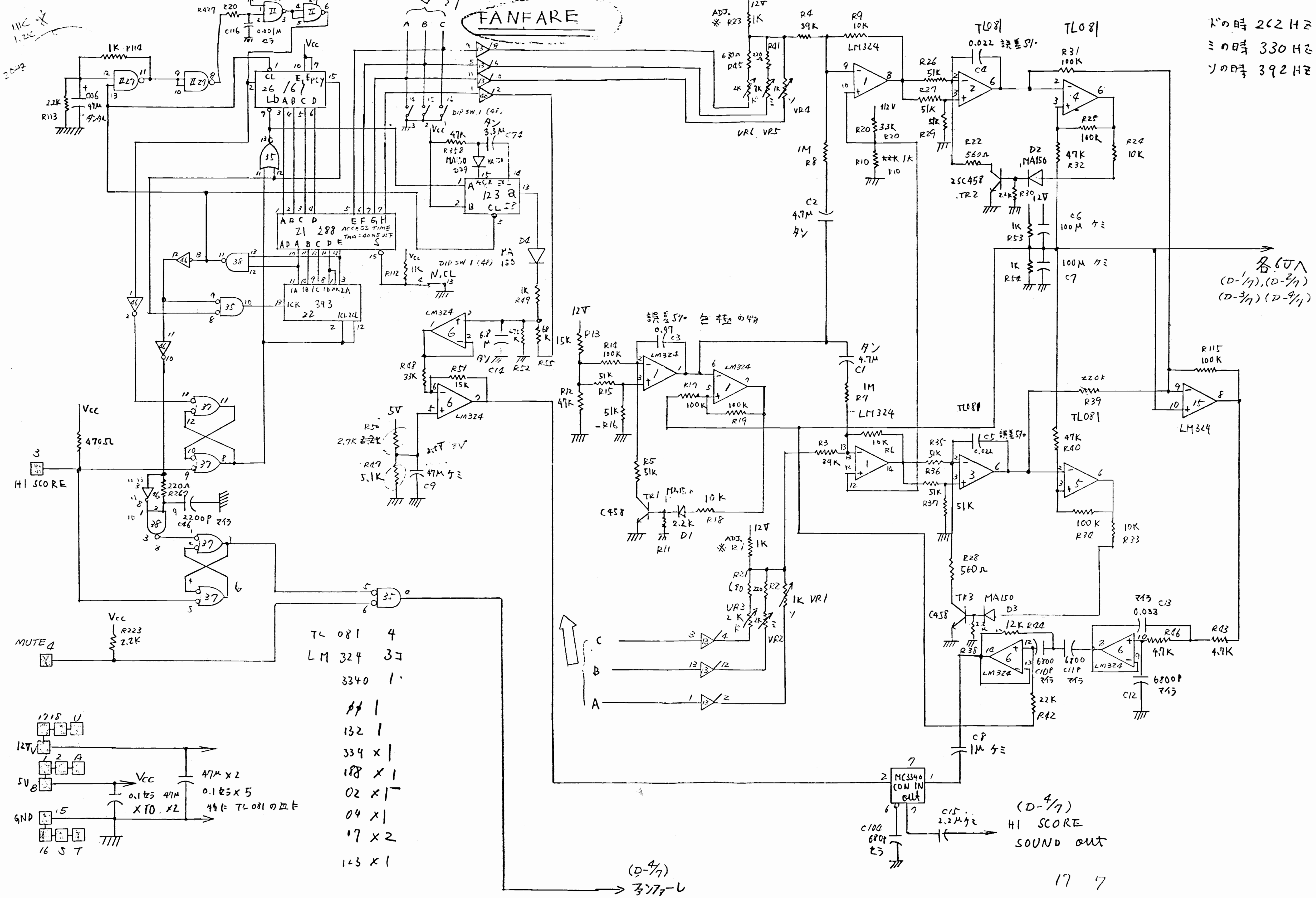
AUG 30 1979

Ⓢ - MONACO GP



96598-P (D-4/7) OSCILLATOR

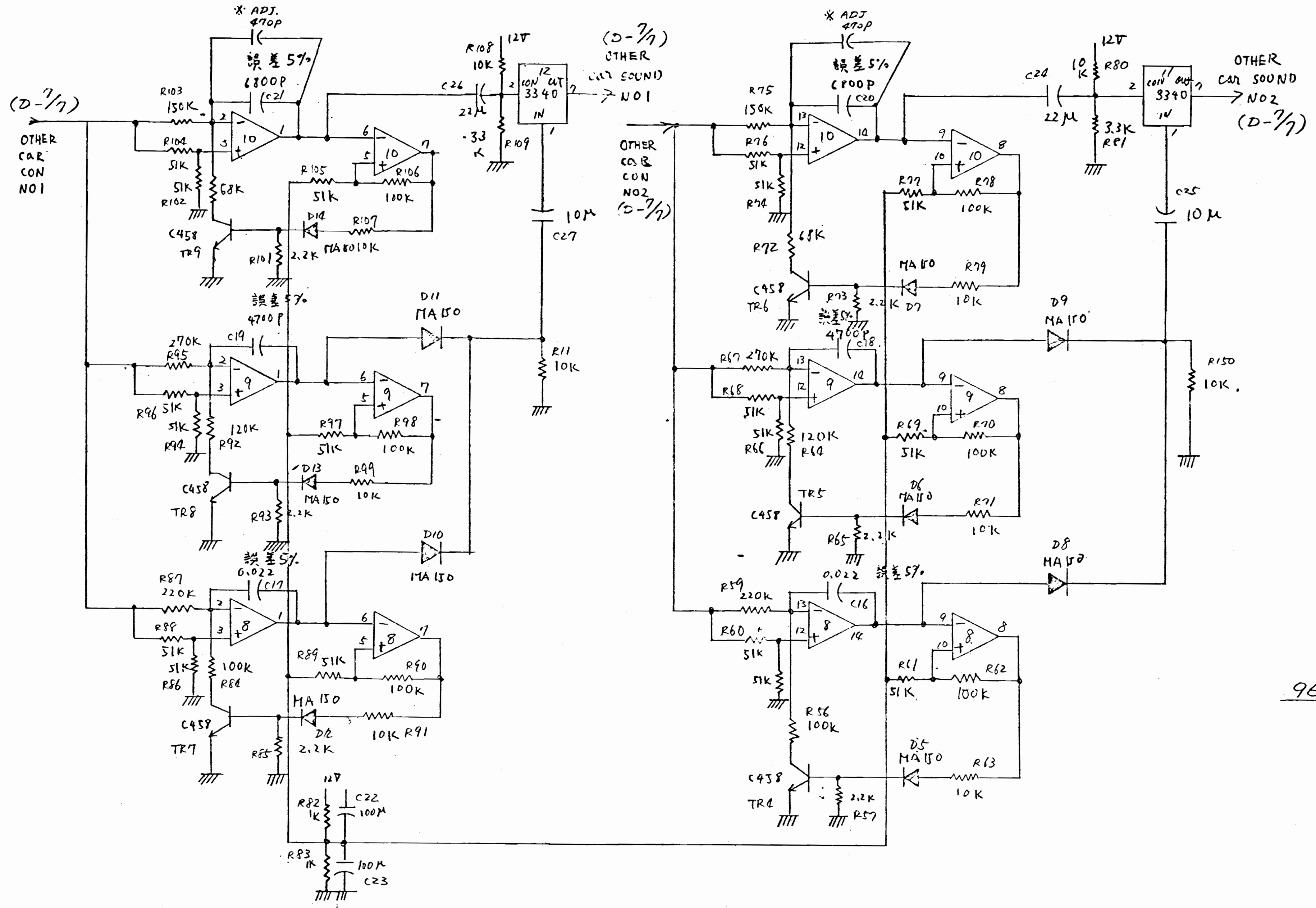
⑤ MONACO GP



96598-P (D-5/7) OSCILLATOR

⑤ - MONACO GP

OP AMP は LM324 NS製の用



OTHER CAR SOUND

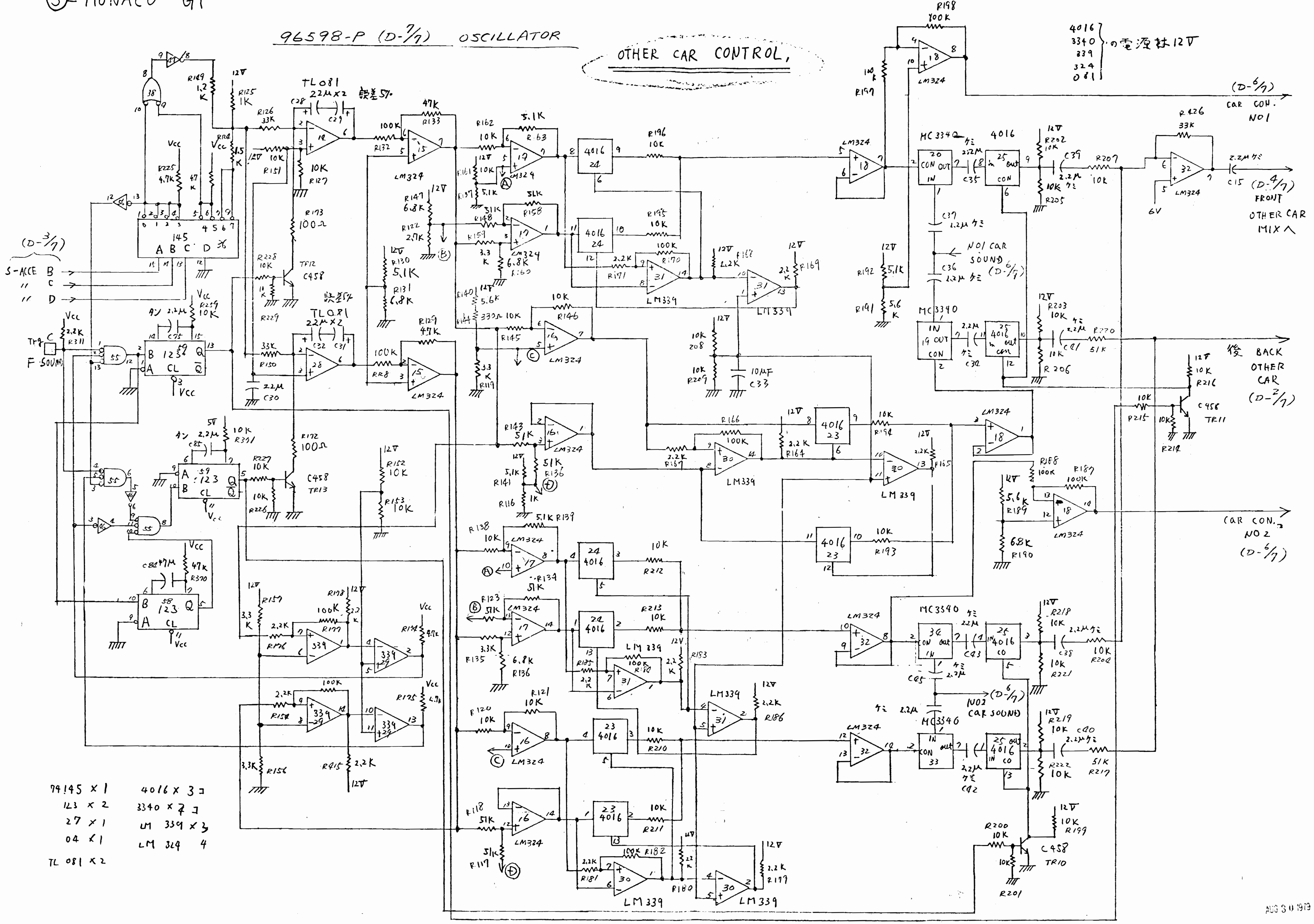
96598-P (D-6/7) OSCILLATOR

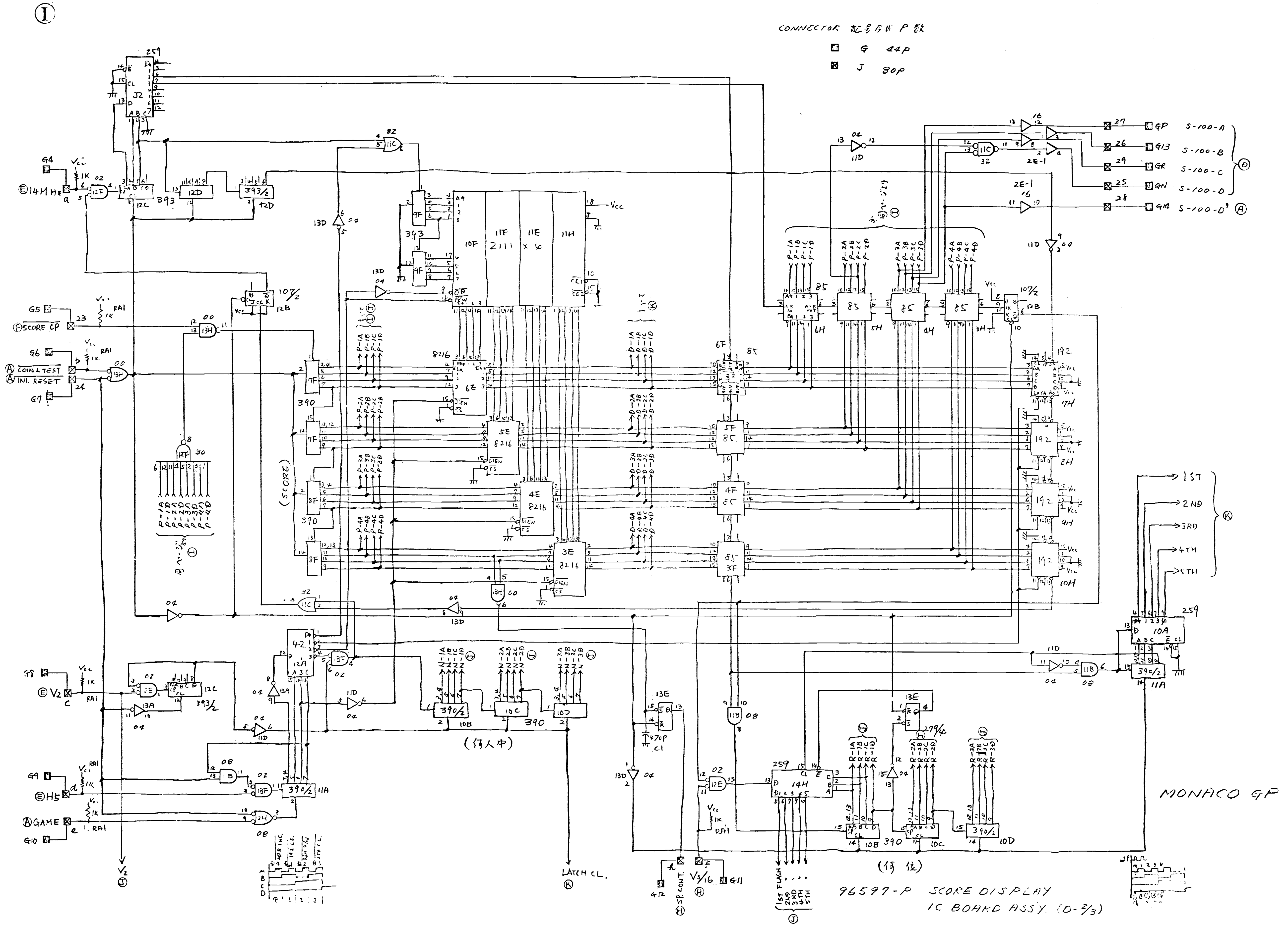
LM324 ×3

MC3340 ×2

Ⓢ- MONACO GP

96598-P (D-7/7) OSCILLATOR

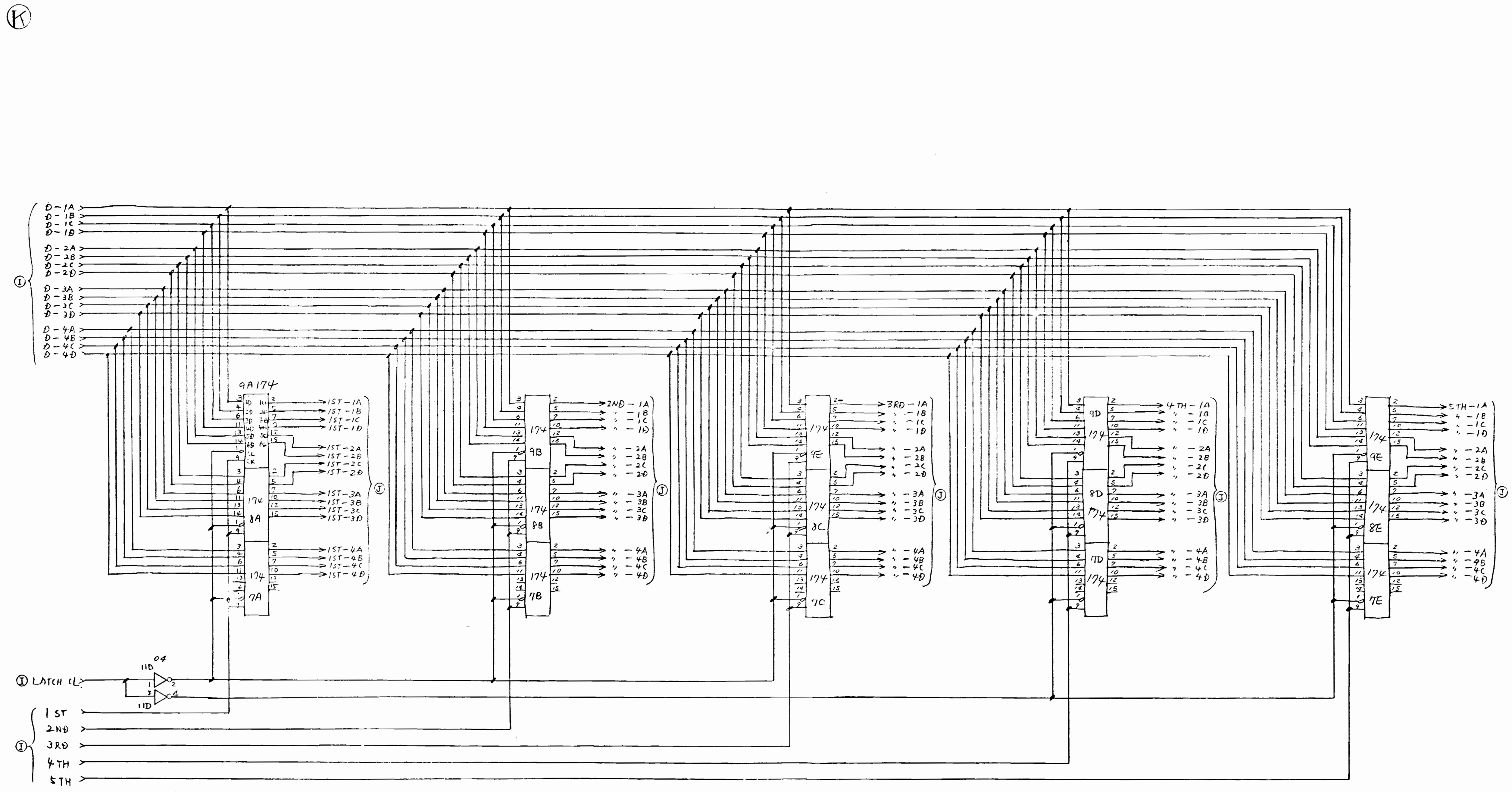




MONACO GP

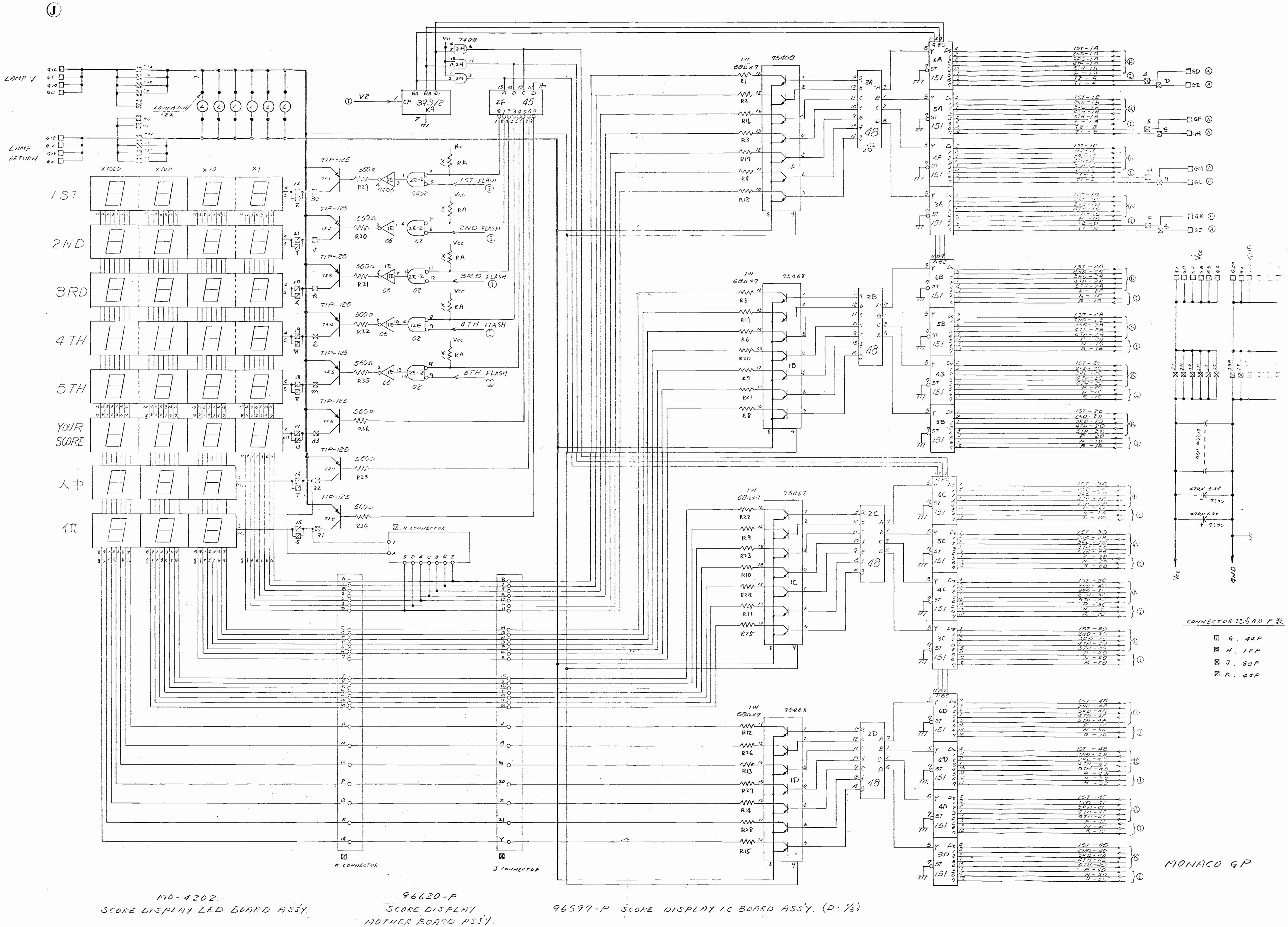
96597-P SCORE DISPLAY

IC BOARD ASSY. (D-2/3)



96597-P SCORE DISPLAY IC BOARD ASS'Y. (D-3/3)

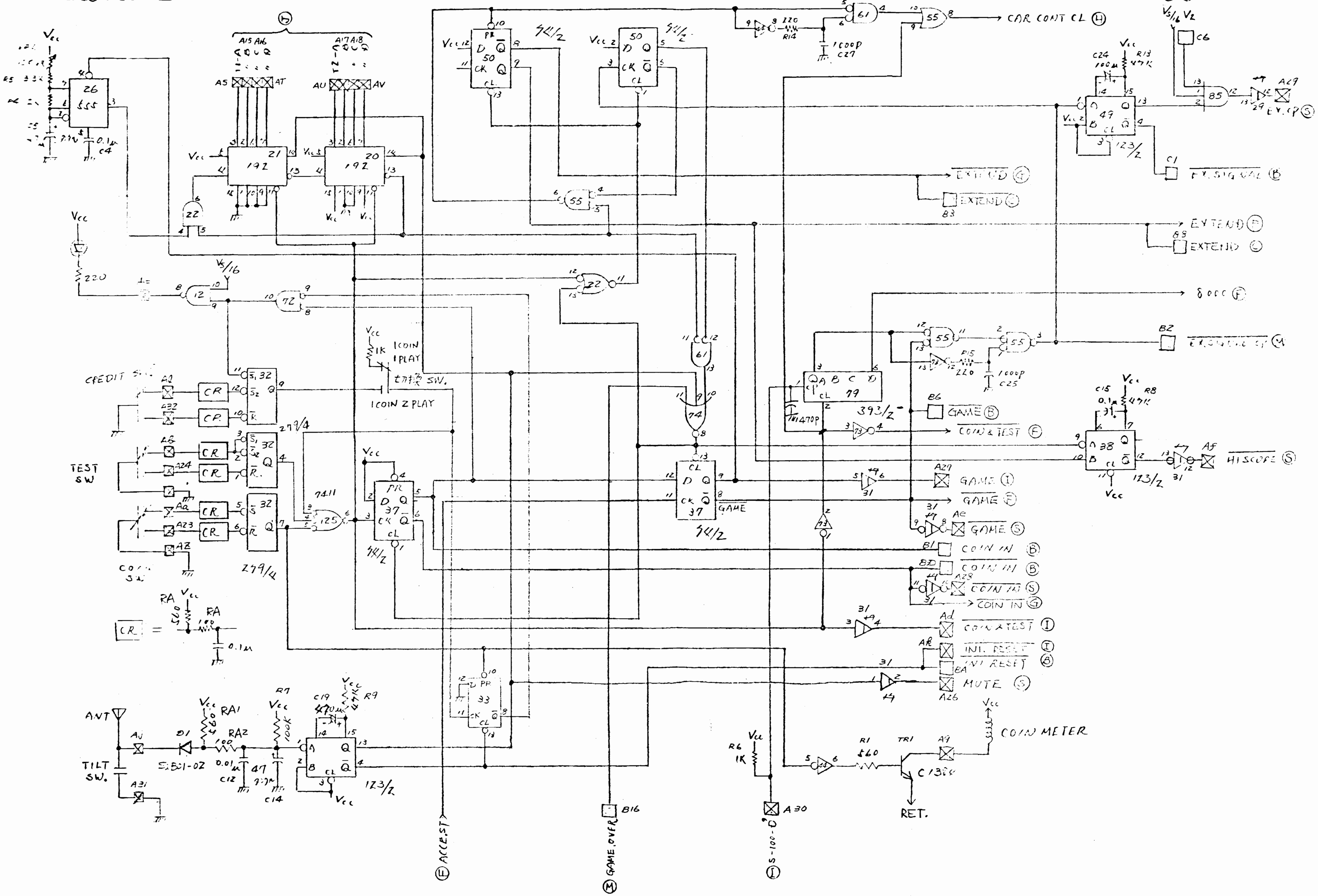
MONACO GP

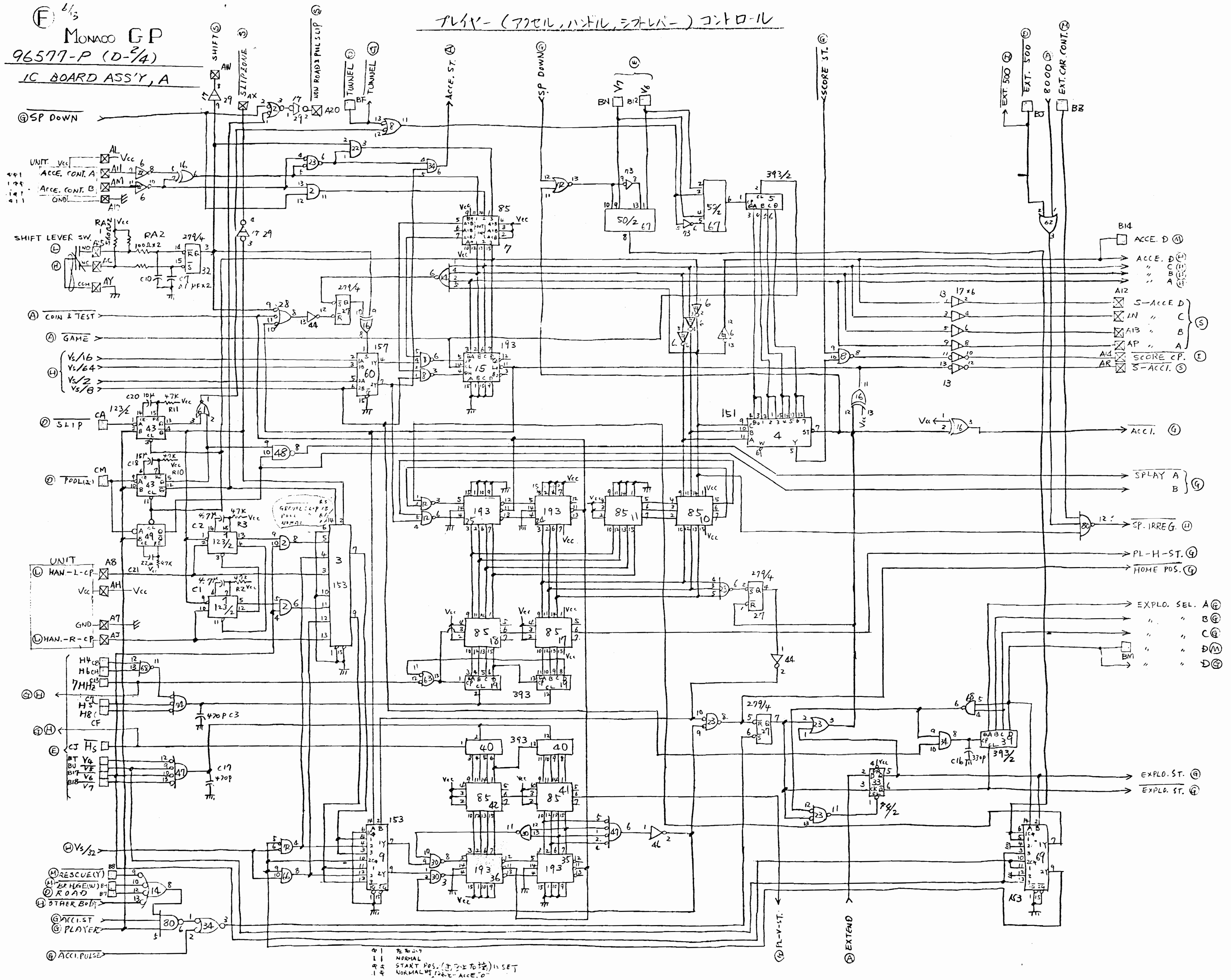


LAMP V
LAMP RETURN
1ST
2ND
3RD
4TH
5TH
YOUR SCORE
人中
位
TIP-125
1ST FLASH
2ND FLASH
3RD FLASH
4TH FLASH
5TH FLASH
H CONNECTOR
K CONNECTOR
J CONNECTOR
CONNECTOR
G. 44P
H. 12P
J. 80P
K. 44P
MONACO GP
MO-4202
SCORE DISPLAY LED BOARD ASS'Y.
96620-P
SCORE DISPLAY
MOTHER BOARD ASS'Y.
96597-P SCORE DISPLAY IC BOARD ASS'Y. (D-1/3)

Ⓐ 1/13

MONACO GP 96577-P (D-1/4) IC BOARD ASSY, A スタート、タイマー、コントロール



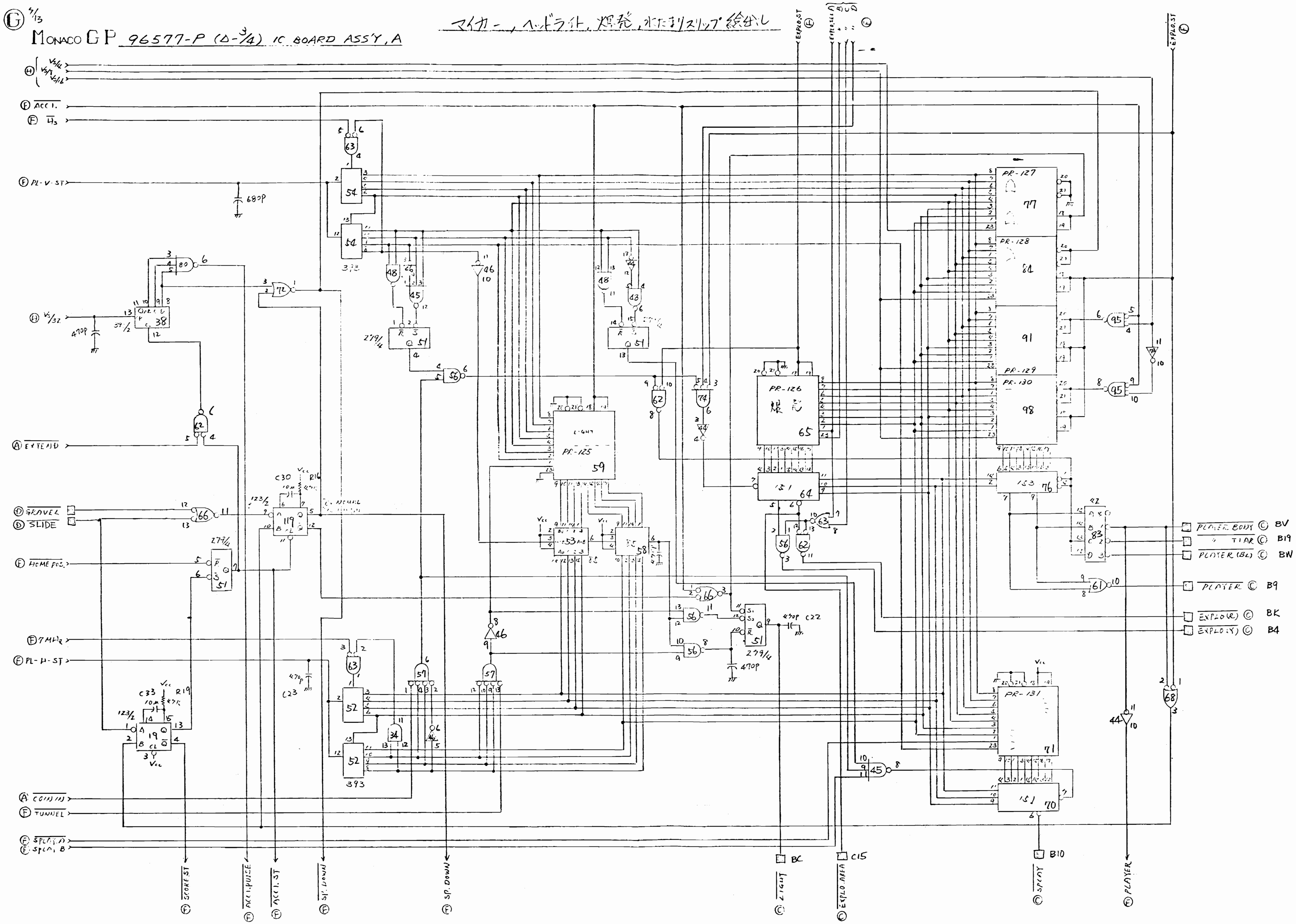


Ⓕ 6/3
MONACO GP
96577-P (D-2/4)
IC BOARD ASS'Y, A
プレイヤー（アクセル，ハンドル，シフトレバー）コントロール
SP DOWN
SHIFT
SLIP ZONE
NON ROAD & PULL SLIP
TUNNEL
ACCE. ST.
SCORE ST.
EXT. 500
8000
EXT. CAR CONT.
ACCE. CONT. A
ACCE. CONT. B
SHIFT LEVER SW.
COIN & TEST
GAME
SLIP
POOL
HAN-L-CP
HAN-R-CP
ACCE. D
S-ACCE D
SCORE CP.
S-ACCI.
ACCI.
SPLAY A
SP. IRREG.
PL-H-ST.
HOME POS.
EXPLO. SEL. A
EXPLO. ST.
RESCUE
BRIDGE
ROAD
OTHER BODY
ACCI. ST
PLAYER
ACCI. PULSE
PL-V-ST.
EXTEND
NORMAL
START POS.

Ⓖ 5/13

MONACO G P 96577-P (Δ-3/4) IC BOARD ASS'Y, A

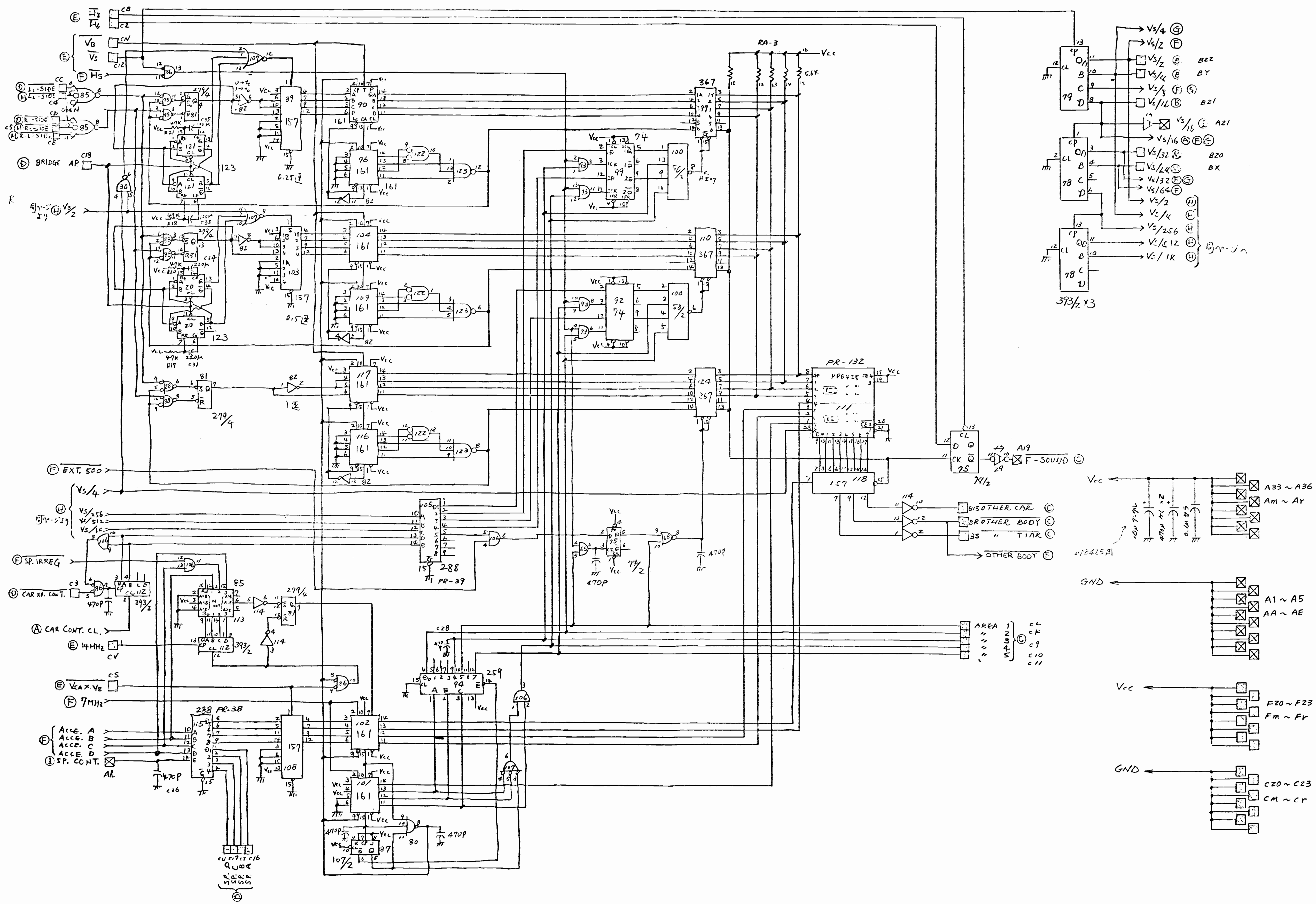
マイカー, ヘッドライト, 爆発, 水たまりスリップ 絵出し



Ⓗ 1/3

MONACO GP 96577-P (D-4/4) IC BOARD ASS'Y, A

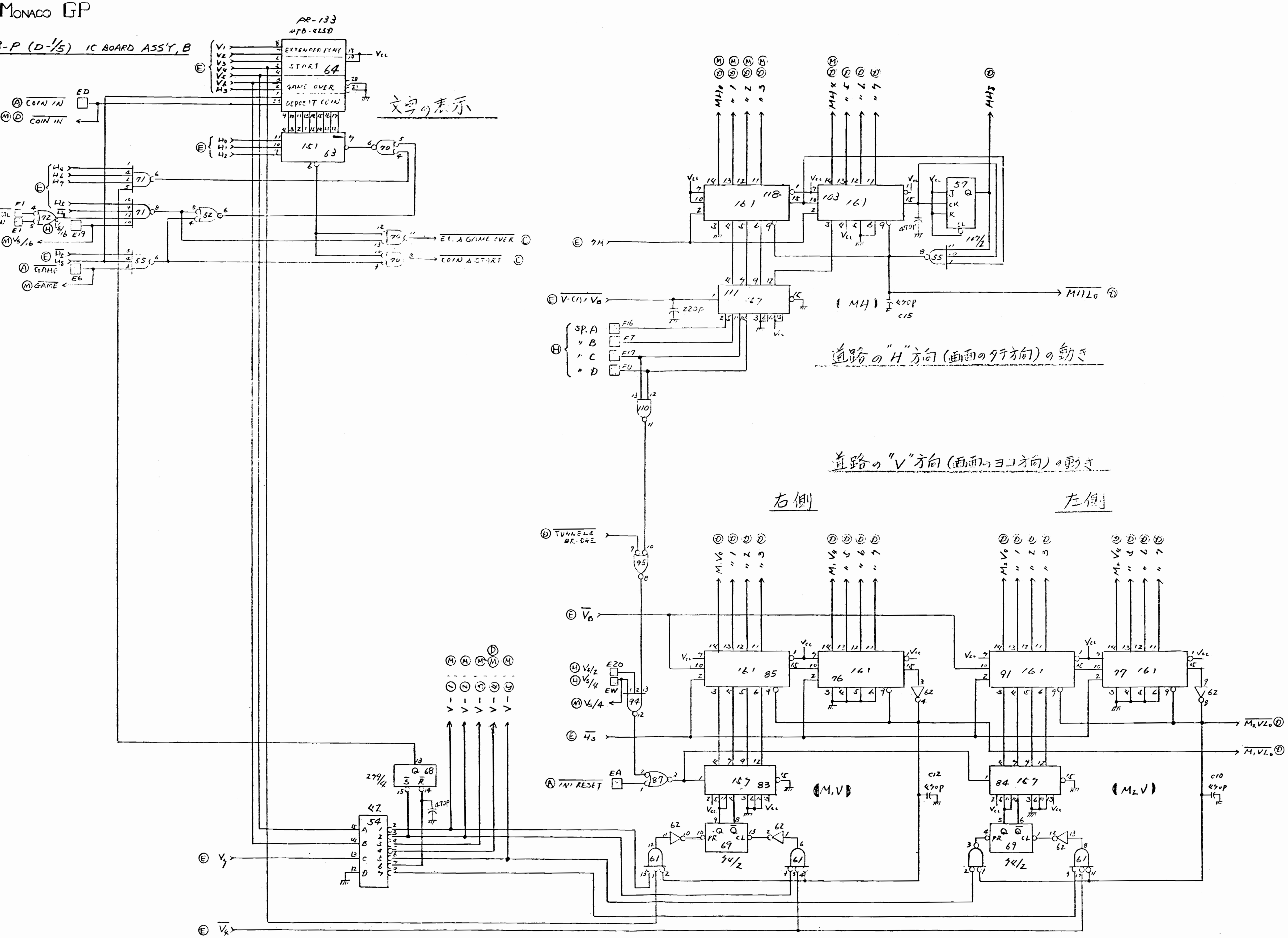
OTHER CAR の絵出しとコントロール



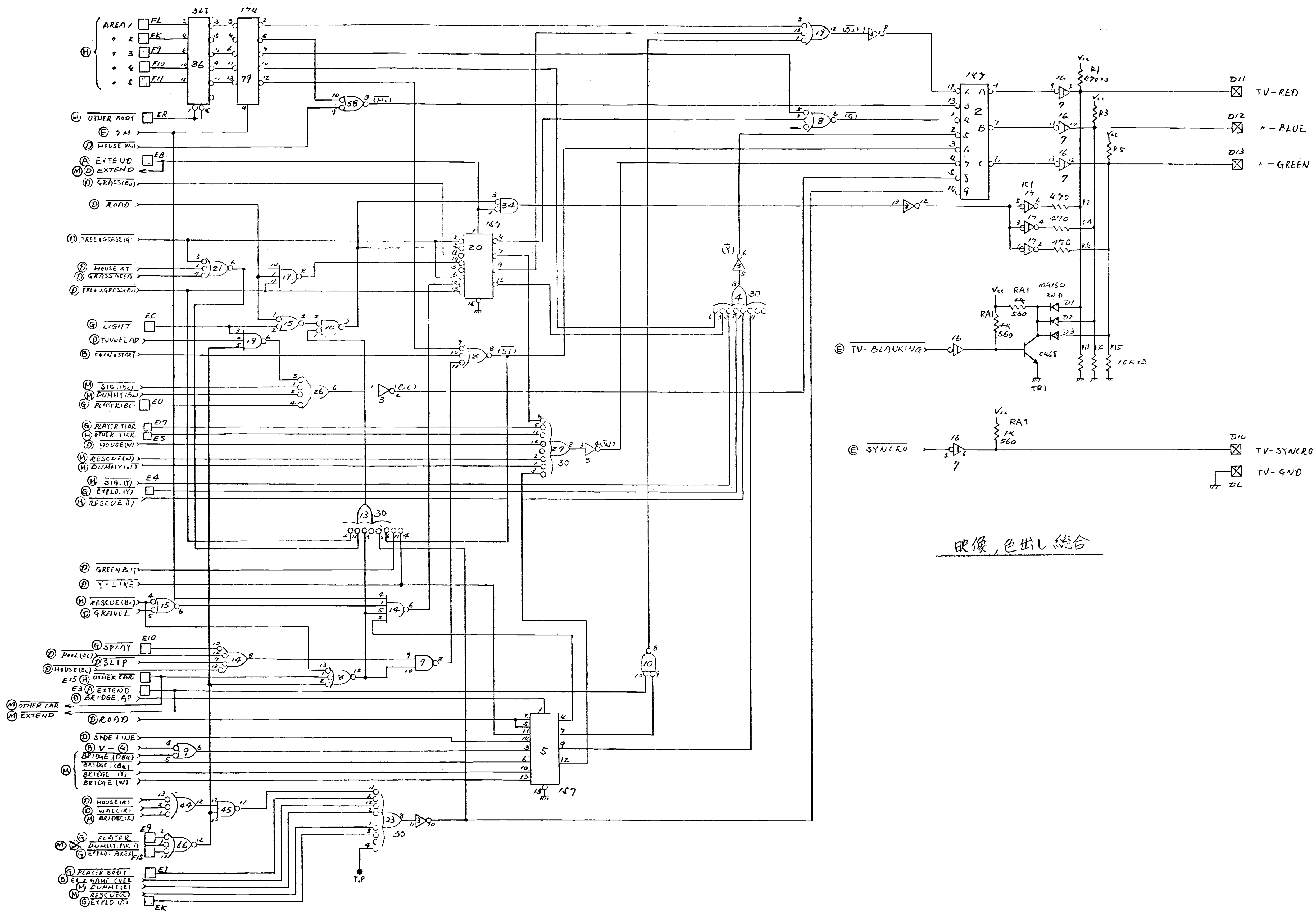
Ⓑ 2/13

Monaco GP

96578-P (D-1/5) IC BOARD ASS'Y, B

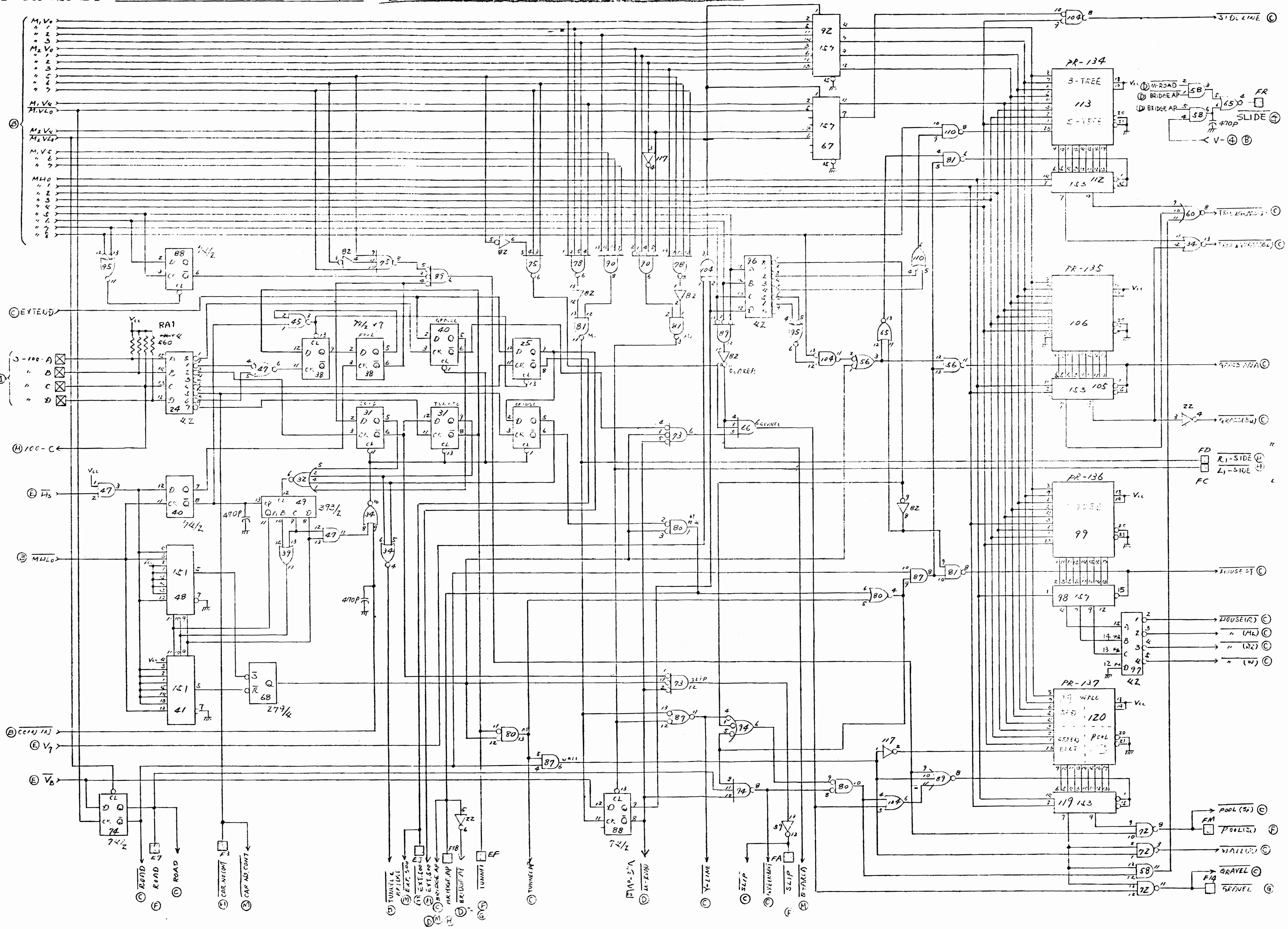


Ⓒ 3/3 MONACO GP 96578-P (D-2/5) IC BOARD ASS'Y, B



映像，色出し総合

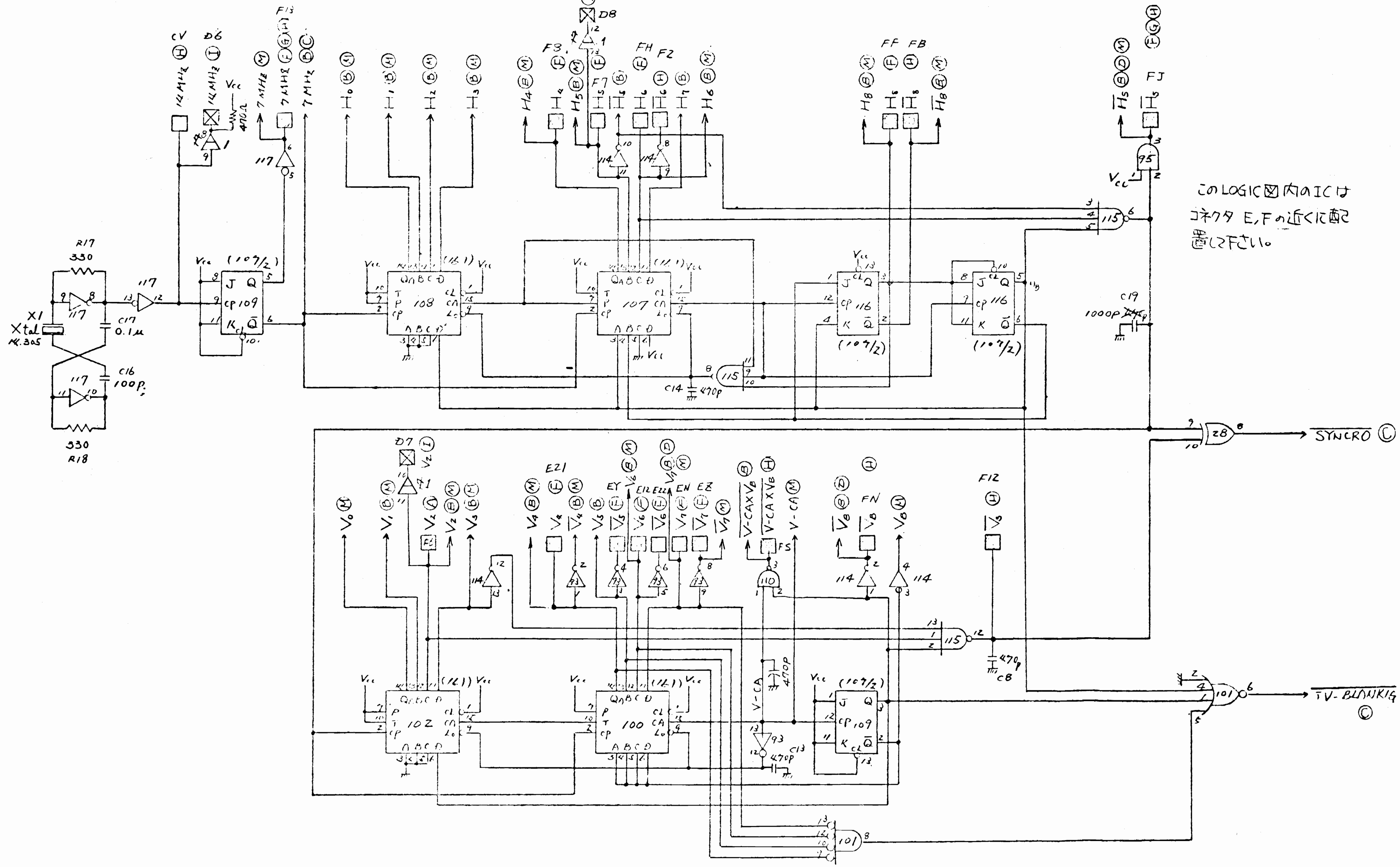
Ⓓ 4/13 MONACO GP 96578-P (D-3/5) IC BOARD ASS'Y, B 道路上の絵出し(トンネル, 橋, 水たまり, シャリ道 etc) とコントロール



Ⓔ 5/13

MONACO GP 96578-P (D-4/5) IC BOARD ASS'Y, B

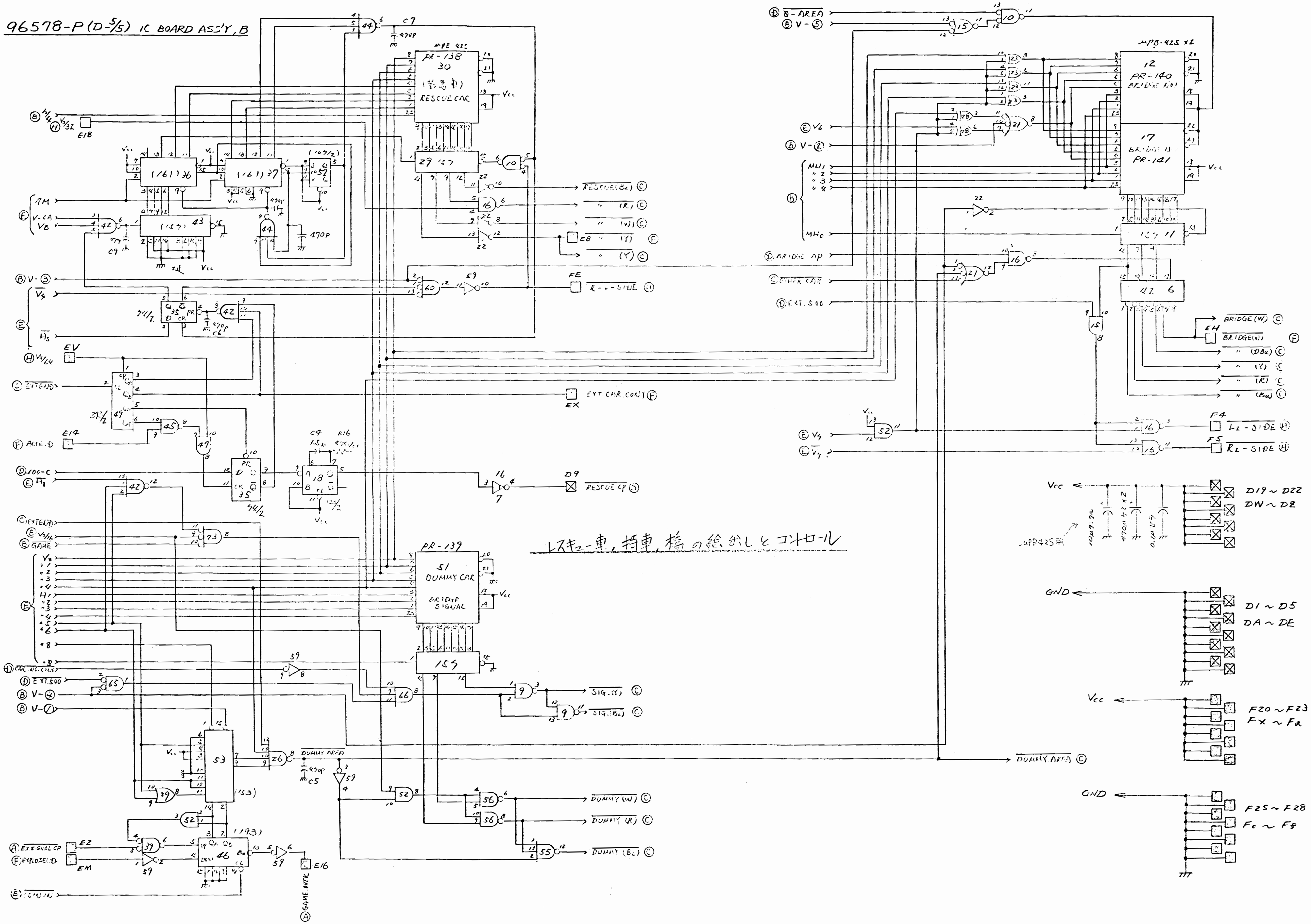
同期信号



M 13/13

Monaco GP

96578-P (D-5/5) IC BOARD ASS'Y, B



Ⓔ 5/13

MONACO GP 96578-P (D-4/5) IC BOARD ASS'Y, B　同期信号

